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GLAUCOMA.

BY

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By extending Claud Bernard's experiment on the rabbit's ear, Loven has shewn (speaking in general terms) that stimulation of a sensory nerve is followed by a dilatation of the neighbouring blood vessels, and contraction of those of the rest of the body.

Irritation tends to increased local vascularity, and this to increase in the nutritive activity of the surrounding cellular elements; if the abnormal conditions continue, still further injurious stimulation follows, with spreading vaso-inhibition, blood stasis, and its results. When the inflamed centre lies in soft tissues, swelling and pus formation progress without much pain or irritation; but when it is situated in firm, unyielding tissue, as in bone, or under the periosteum, the tendency to swelling and

exudation is prevented, the parts are severely compressed, and nerve worry, with further spreading vascular dilatation, follows. Pressure on the nerves produces agonising pain, high temperature, and severe constitutional disturbance, best expressed by the term *Tension Fever*. Locally there is an impairment of nutrition in the strangulated tissues, and, finally, their degeneration and death. Relief of the tension by incision through the infected nidus frees the nerves from irritation, and removes the cause of the constitutional condition; whilst the amount of local damage depends mainly on the intensity and the length of the period of strangulation. Large necrosis of a bone-shaft may result from unrelieved periostitis, but a complete recovery should rapidly follow an early incision.

The mischief done by tension must depend largely on the structure affected.

Glaucoma is a very serious disease, characterised by increased tension of the eye-ball.

Whilst the normal blood pressure supports a column of mercury 125 mm. in height, normal intraocular pressure supports 25 mm.; when 45 mm. is supported, eye-ball tension is definitely to be detected by palpation; but ocular pressure varies with the size and shape of the eye, the elasticity of the sclerotic, and the condition of the intraocular vessels. It is rarely increased in myopic eyes, though I have met with a few such cases.

The effects on sight of continued high intraocular pressure are so disastrous (sometimes most rapidly so, but more often insidiously, and by a sequence of symptoms whose importance is usually overlooked) that it would seem essential for every practitioner to be able to recognise the disease in its early stages, that proper treatment may be adopted before it is too late.

I endeavour to impress upon my students the extreme importance of learning to judge of intraocular tension, and of diagnosing both primary and secondary Glaucoma.

I fear that the experience of most ophthalmic surgeons would be that the sight in many *chronic glaucomas* is allowed gradually to fade away, and that in *acute* cases the importance of the eye in the train of symptoms is often overlooked.

Acute Glaucoma resembles inflammation. The symptoms of eye tension are very severe, their onset very sudden, with little tendency to spontaneous remission.

The chief complaint of the patient is neuralgia in the branches of the ophthalmic nerve, mainly around the orbit, with hemicrania, frequently accompanied by vomiting. The eye itself may be only slightly injected and dull-looking, with turgidity of the anterior ciliary veins, but usually it is intensely congested, with distensile pain increasing in severity; such cases are frequently mistaken for "bilious headache" or "rheumatic ophthalmia."

If attention is given to the eye, such a diagnosis is impossible: the cornea is dull, and the pupil, enlarged and sluggish, is pushed forward. Palpation shews that intraocular tension is very much increased, the eye-globe is quite firm and hard, vision is greatly impaired, and may be lost in a few hours. The second eye usually becomes affected in a like degree.

But destruction of sight follows eye-ball tension of far less severe type. Continuous or frequently-recurring pressure, of even slight degree, soon deteriorates the delicate elements of the retina and destroys their functions.

Between the most acute attacks, terminating in blindness within a few hours (*Glaucoma Fulminans*), and those in which sight gradually fails for a year or two, without

any congestion of the eye or pain (*Glaucoma Simplex*), all kinds of intermediate cases are found; and most of them, if unrelieved, go on to blindness (*Absolute Glaucoma*).

The ordinary type is chronic, with subacute attacks of irritation periodically occurring. The eye is generally Hypermetropic, with a thick, unyielding globe. High tension on the *suspensory ligament* and *impaired ciliary action* are accompanied by rapidly-increasing Presbyopia, and *pressure on the retina* is expressed by its lowered function, dulness of sight, varying increase of cloudiness, especially after hard work, and progressive narrowing of the field of vision, especially in the lower part of the nasal side.

Artificial lights appear surrounded by haloes, red usually lying outside; in myopic eyes violet is outside.

The Cornea is more or less steamy, the *anterior chamber* shallowed by pushing forward of the iris, the *pupil* dilated, oval, and inactive; the *anterior ciliary veins* are congested and tortuous; there may be Scleral staphyloma.

The media are clear or more or less clouded; the *disc*, yielding most readily to the intraocular tension, is cupped; its vessels curve down over the edge, and both artery and vein pulsate; its central nerve-fibres suffer most, these pass to the periphery of the retina, and are concerned with the most peripheral parts of the field of vision, which is thus the earliest affected.

All these symptoms depend upon *increased pressure of the vitreous on its surroundings.*

Pain may be absent, or is dull and periorbital.

The early diagnosis of Glaucoma is most essential, not less so than that of acute inflammation in bone, or of strangulated hernia.

A very slight abnormal *pressure on the retina* is quite

disastrous as regards sight, whilst a few hours' excessive intraocular tension will convert perfect vision into blindness.

And now as to the Pathology of the disease as a guide for treatment. The humours of the eye are secreted by the ciliary body; (*a*) the *aqueous* by the part lying in the posterior chamber, between the iris and the suspensory ligament; (*b*) the *vitreous* at the *Z*onule of *Z*inn by the posterior portion of the ciliary body where it lies on the Pars Ciliaris Retinæ.

The humours exude by exosmosis through many filters. Under normal conditions, pressure in the aqueous and vitreous are about equal; (*a*) the *aqueous* in the anterior chamber pushes back the iris upon the suspensory ligament (this acts like a valve, preventing regurgitation to the posterior chamber), and opens up the corneo-iritic angle, where it exudes through the trabeculae in the Ligamentum Pectinatum Iridis (Fontana's space) to Schlemm's canal and the anterior ciliary veins; (*b*) the *vitreous* filters, between the edge of the lens and the ciliary body, through the canal of Petit and the suspensory ligament, to the posterior chamber, where it joins the aqueous, and passes through the pupil.

If a diffusable liquid be injected into the aqueous, it escapes easily, and at a low pressure, along the tract mentioned; but injected into the vitreous, it does not escape, but pushes forward the lens, the ciliary body, and iris towards the cornea; closes the corneo-iritic angle, compresses Fontana's space (Lig. Pect. Iridis), and cannot escape.

Progressive obstruction to the outlet of the intraocular fluids at the corneo-iritic angle, with compression of Fontana's space, is probably always present in Glaucoma.

The Clinical Varieties of the disease depend on the nature of the morbid process causing the obstruction, or on its primary seat and character.

(*a*) *Changes of circulation or of nerve function*, especially in the ciliary body, or Pars Ciliaris Retinæ, may cause hypersecretion into the vitreous, with bulging forward of its anterior relations; or an altered character of the intra-ocular fluid may interfere with its normal tendency to diffuse through the suspensory ligament.

(*b*) *Swelling of the Ciliary Body* tends to obstruct Fontana's space in the ligamentum pectinatum iridis, or it may carry the adjacent iris forward, and narrow the corneo-iritic angle, or it may approach the edge of the lens and lessen the circumlental space.

(*c*) The perilenticular space is also narrowed by the *increased size of the lens*, which Priestly Smith has shewn to occur with advancing years, and to which he attributes the Glaucoma tendency of old people.

Hypermetropia *predisposes* to Glaucoma. The eye-globe is generally firm. The perilenticular space is narrowed by increased diameter and flattening of the lens, and by hypertrophy of the annular fibres of the ciliary muscle, described by Muller as the Compressor Lentis.

In a much narrowed circumlental space, or in a contracted corneo-iritic angle, complete obstruction might be readily excited.

Exciting causes are found under conditions of nervous depression, and these are associated with dilatation of the pupil; whereas premonitory attacks tend to subside when the pupil is contracted, as under warmth, food, and especially sleep.

The effect of dilatation of the pupil in exciting eye-ball tension, and of contraction of the pupil in reducing it, is

attributed by Priestly Smith (to whose work on Glaucoma we are so much indebted) to the mechanical relations of the iris.

When the *pupil dilates*, the iris is gathered up in folds towards its ligament; this does no harm in the normal eye, but if the corneo-iritic angle is narrowed, and the iris pressed forward by the ciliary processes, complete blockage through Fontana's space in the ligament of the iris may result, and Glaucoma is established.

The converse occurs on *contraction of the pupil;* the iris is drawn from between the cornea and the ciliary processes, and the blockage is relieved.

It is well known, clinically, that eserin relieves eyeball tension, and that atropine has caused Glaucoma.

Some experiments by Höltzke, of Erlangen, showed that the aqueous pressure in cats' eyes increases with dilatation of the pupil, and falls with its contraction.

The lowest pressures recorded were under curare, or morphia. *Eserin increases the intraocular pressure considerably, and only lowers it when contraction of the pupil is established.*

Probably all mydriatics tend to increase Glaucoma, and all myotics to relieve it, in uncomplicated cases. Pilocarpin and curare might be used, but the action of eserin has been more studied; a solution of two grains to the ounce should be put into the eye several times a day, in order to contract the pupil. During the premonitory stages its benefit is very marked on tension and on sight, but it seldom permanently cures Glaucoma; some predisposing cause is generally present which is readily excited to a repetition of the attack, or pathological changes may prevent relief of the obstruction at the filtration channel.

When eserin cannot contract the pupil, it is harmful;

by its inhibitory effect on the blood vessels it increases the tension of the eye.

If Glaucoma is secondary to some other affection—and it may complicate almost any of the eye, especially where the ciliary body and the ligamentum pectinatum iridis are implicated—mydriatics (*Atropine, Duboisin, Daturin*) may be indicated. The rule should be, however, to use eserin in nearly all cases of Glaucoma until arrangements can be made for an operation, which is usually indicated without delay, in order to open up the obstruction to filtration, usually found at the periphery of the iris, between the ciliary body and the corneo-iritic angle.

1. *Simple paracentesis* affords temporary benefit. I have taken vitreous by an aseptic hypodermic syringe from eyes suffering from absolute Glaucoma, to the relief of pain. De Wecker uses a gold wire in such for continuous drainage.

2. *Cyclotomy or Myotomy* might be expected to modify the abnormal conditions existing in the ciliary body, and to be of value in acute cases, but probably no one would rely on it in these, whilst in chronic cases it can only relieve by forming a filtration scar by prolapse of the iris. I should never adopt it.

3. *Sclerotomy*, by dividing the periphery of the cornea, cuts near or through the main obstruction, but has hardly found favour with the majority of ophthalmic surgeons. De Wecker insists on the use of eserin before and after the operation, and specially warns against any bulging of the iris; Mr. Bader, on the other hand, encourages a permanent iritic staphyloma. Other details of the operation vary in the hands of different surgeons.

I perform sclerotomy in absolute Glaucoma, and on all my cases where the iris is much degenerated. The use

of eserin widens the corneo-iritic angle, and renders it easier to pass the knife without entangling the obtruding iris. I make a long incision with a narrow sharp-pointed knife, having a short cutting edge, in this angle to a depth not quite reaching the subconjunctival tissue, and for about a fifth the length of the periphery of the cornea, taking great care to avoid prolapse of the iris, and use eserin frequently, afterwards. The operation relieves pain, but I am rarely satisfied with its permanent reduction of tension.

4. I have confidence only in a *large Iridectomy*, the corneal section made far back, so that the periphery of the muscle may be well removed, and without allowing any prolapse.

The sooner the operation is done the better; the amount of sight which the patient has retained up to the operation in *chronic* Glaucoma will usually be permanent, and may improve slightly for some months.

In *acute* cases its results are most brilliant; the abnormal symptoms disappear, and sight is restored more or less completely, according to the amount and duration of the abnormal pressure. Even though blind, the eye may almost perfectly recover after early iridectomy.

Of *malignant* Glaucoma I have no experience, and in the severe variety designated *Hæmorrhagic*, where the sclerosed vessels are liable to bleed into the vitreous or aqueous, and which follows retinitis apoplectica, I recommend no operation, as severe hæmorrhage or detachment of the retina might ensue, with sudden complete blindness.

AN UNDESCRIBED FORM OF STRICTURE AT THE ORIFICE OF THE MALE URETHRA.

BY

THE EDITOR.

IN none of the works on Surgery, general or special, which I have consulted, can I find any reference to the form of stricture which I here wish to describe. Apart from its rarity, the condition warrants a special description on account of the troubles it gives rise to and its resistance to treatment. In fact, I have met with no strictures of the urethra which gave both the patient and myself so much trouble as the two cases I have to relate. Indeed, I may say that, as compared with ordinary strictures of the urethra, the treatment of this form has been in my hands complete failure.

The first case was sent me by Mr. Skelton, of Downend. The patient was a strong, healthy labouring man, aged thirty-four, married, with children. He had never had any venereal disease, and no rashes, sores, or any irritative lesion on the glans or prepuce. During all his life, and for the first few years of his married life, he had been able to retract the foreskin completely and without difficulty. Within the past two years the foreskin had become adherent to the glans in a semi-retracted position, as the foreskin usually lay. At the same time the exposed portion of the glans became covered with a

hard semi-cartilaginous tissue, which extended into the orifice of the urethra and caused narrowing of the canal. So much had this narrowing proceeded that when I saw him he was able only after violent expulsive efforts to propel the water in a tiny stream. Usually the water came only in drops, and micturition was always attended with great pain.

On examination, the whole of the mucous membrane of the glans penis almost up to the corona was replaced by a dense gristly material, so unyielding as to altogether prevent enlargement during erection. The exposed frenum was greatly enlarged and thickened. Behind the corona a probe, pushed through the adhesion between prepuce and glans, could be moved all round the penis. The meatus was contracted to a pin-point, admitting with difficulty an ordinary surgical probe, and was surrounded with the same dense, unyielding, gristly material. The contraction seemed to extend about a third of an inch down the urethra.

I divided the adhesions between glans and prepuce, finding the corona free from adhesions; slit up the orifice so as to admit a No. 10 English catheter, and tried to dissect the gristly material from the glans. But this last I could not perfectly do, as the tissue extended into the gland substance, and there was no line of demarcation between it and the erectile tissue. After a few weeks it was evident that I had effected no improvement. The surface of the glans got as hard as ever, and the induration along the margin of the prepuce reappeared. But what was most annoying was that, in spite of constant passing of bougies, the meatus speedily contracted again. The passage of a large instrument caused more pain than the patient, though he was a plucky fellow, could bear, and

the result was that he was discharged with a No. 4 French rubber bougie, which he passed once or twice daily. He attended some months as an out-patient, and it was only by steady perseverance, in spite of great pain, that he has been able to keep the calibre of the urethra up to the small size it now is.

I need not say that he had all sorts of emollient applications—vaseline, glycerine, iodide of potassium ointment, and so forth—all of them useless. All the treatment I could apply did him little good; in fact, as the hardening since division of the adherent prepuce has extended backwards, it may have done harm. He passes a slightly larger stream by the help of the bougie, but the pain from the bougie is almost as great as the pain used to be from micturition through the pin-hole orifice.

My second case, a strong, healthy lad of eighteen, was also an Infirmary patient. He was admitted in May, 1883, complaining of pain and great difficulty in micturition. The urine came in a very small stream or in drops, and he took about ten minutes in emptying the bladder. This had been going on and gradually getting worse for two years. He had had no venereal disease, and up till his troubles began he had had no difficulty in fully retracting the foreskin.

His condition was almost exactly similar to that of the previous case, except that the prepuce was adherent to the glans closer to the meatus, less than half-way between it and the corona; and at one side of the frenum a deficiency in the adhesion easily admitted a probe, which could be freely moved in the cavity so left. There was the same gristly condition of the frenum, and the same extension of the thickening for a little way down the urethra.

The patient would not submit to ætherization, and so no operative procedure was possible. The parts were kept soaking in glycerine, and attempts made to dilate the orifice by bougies. This caused so much pain, however, and the results were so slow and so doubtful, that the patient left when the orifice would admit with difficulty a rubber bougie about the size of an English No. 3. I have seen or heard nothing of the lad since.

What is the nature of this condition? That the stricture of the meatus is of the same nature as the thickened and contracted mucous membranes generally is evident enough. But deeper than this into the nature of the malady it is difficult to go. At first phimosis, and the irritation consequent thereon, suggests itself. But neither patient had phimosis, and the adhesions were least where those in phimosis are usually greatest, namely, over and behind the corona glandis. Repeated attacks of Herpes Progenitalis might be offered as a cause. But both patients denied having suffered from this, or any other eruptive or ulcerative malady whatever. Both maintained that their complaints came on of their own accord, without any apparent cause.

In fact, to presuppose any inflammatory condition would by no means get rid of the difficulty. Nothing less than a severe scald would beget dense cicatricial tissue so evenly distributed over the whole surface; and no traumatic or inflammatory condition which I have ever seen has left so even a surface behind it. In one of the cases the sclerosis and urethral contraction went on steadily under a medical man's eye without the appearance of any inflammation whatever. Mechanical irritation, long continued, might doubtfully start such a condition, but even then the mischief would not

go on increasing after the irritation had certainly been stopped.

I believe that, on the whole, we must regard the condition as a true cirrhosis of mucous membrane, as scleroderma is of the skin. It was clearly not a mere epidermic hypertrophy; the sclerosis deeply involved the fibrous tissues of the glans. The dense tissues were anæmic and transparent, as in scleroderma, and exhibited no line of demarcation from the underlying substance.

The local condition—the pale, glistening, hard, contracted dermis, and the history, owning no irritative or other exciting cause, tally readily enough with the disease scleroderma; but the situation, on mucous membrane, and the existence of adhesions—not very strong, certainly, but still palpable enough—between orifice of prepuce and glans, are against its being true scleroderma, though not insuperably so. If it is not a scleroderma, I can offer no further suggestion as to what it is.

Whatever be its true pathology, there can be no doubt as to the reality and urgency of its symptoms. The pain during micturition is far more severe than we find in cases of ordinary stricture, and the measure of relief which I have been able to give, after much thought and trouble, has been very small. Removal of the contracted orifice would be so much of an experiment that I should not dare to propose it. And yet, if the spontaneous cure which we occasionally see in cases of pure scleroderma does not take place here, I know of no other means of relieving these patients from their sufferings.

A NEW NEUROSIS.

(THOMSEN'S DISEASE.)

BY

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IN 1876, Dr. Thomsen, of Kappeler, in Schlesig, described a special form of disease, from which he and many members of his family suffered. The characteristic feature of the disease is described by its one essential symptom—spasmodic and tonic cramp in muscles, occurring suddenly and irregularly on attempting voluntary movement. In January, 1883, MM. Ballet and Marie published a case of this disease (*Archives de Néurologie*), naming it "muscular spasm at the commencement of voluntary movements." In March, 1883, Westphal brought two cases of the disease before the Society of Medicine of Berlin, and quoted six other cases which had come to his notice from Germany and Italy. He named it "Thomsen's Disease." Dr. Greffier published a paper on the subject in *La France Médicale* in April, 1883, and discussed it pretty fully, without, however, adding any new facts.* In July, 1883, Dr. Schönfeld, of Berlin, published a case of Thomsen's Disease, occurring in a recruit, and first recognised when the man began his drill.

About the middle of last year a man was admitted under

* This paper was reproduced in the *Glasgow Medical Journal*, November 1883, and an abstract of the reprint appeared in *The Practitioner*, February, 1884.

my care at the Bristol Royal Infirmary, who showed symptoms strikingly like those belonging to Thomsen's Disease. I am not prepared to call my case a genuine case of so-called Thomsen's Disease, but the phenomena of my case point to a neurosis of the same order. After reading what has been written about Thomsen's Disease, I have thought that the publication of my case might, perhaps, help to throw some light upon the nature of the novel and obscure set of phenomena known as "Thomsen's Disease." Some additional facts observed in my case seem to touch a question which has been raised as to the share sympathetic or vaso-motor influences take in the production of the phenomena.*

First, let me give a brief summary of what has been already set forth in regard to Thomsen's Disease.

The essential character of the disease is spasmodic rigidity or tonic contraction of muscles of the limbs, face, tongue, &c., on attempting to make voluntary movements. A patient attempting to walk upstairs could lift his legs with difficulty; after mounting seven or eight stairs, rigidity disappeared. Fingers stiffen whilst playing the piano. One leg placed in the stirrup during the act of mounting a horse, became rigid in flexion, whilst the other leg, thrown on the back of the horse, became fixed there in extension; for a short time the rider was unable to move from his ludicrous position, but presently the rigidity passed off, and he seated himself in the saddle. Children are seized in the midst of their play. Whilst eating, the masseters stiffen, fixing the jaw, as in tetanus. On attempting to rise from the sitting posture, the feet become glued, as it were, to the floor, and the knees fixed; on persevering in the effort to rise, the standing

* See *London Medical Record*, 1883, p. 190, remarks by Dr. Kesteven.

position can be assumed slowly and with difficulty; presently the muscular rigidity passes off and the patient can walk.

In some cases hypertrophy of muscles supplied by spinal nerves has been noticed, and sometimes, though not usually, the increase in bulk is associated with corresponding increase of power. The mechanical and electrical excitability of the affected muscles is said to be increased. Sensibility is not affected. Tendon phenomena are normal. The structure of the muscles remains normal.

The circumstances that provoke the attacks are various, and chiefly physical—cold, striking the foot against a pebble, strong muscular effort; and it is interesting to note that an attack may in some patients be induced by emotion, the sudden thought of the affection, or mere imagination.

The disease is said to be distinctly hereditary; it occurred in four successive generations in Dr. Thomsen's family. But it would seem that other neuroses—epilepsy, mania, &c.—alternated with the disease in question. The disease in most cases dated from infancy. In the case of Schönfeld's recruit the disease appeared at the age of fourteen, after the lad had been bitten in the leg by a dog.

As might be expected, there is great difference of opinion as to the nature of the disease. Explanation of the phenomena must be, in the nature of things, hypothetical at present. Dr. Thomsen regards the disease as a neurosis or psychosis, but this gives little information beyond expressing the opinion that we have to do with a lesion of the nervous system, and not a lesion of the muscular system. Westphal considers it a congenital anomaly of muscle-tonus; and, again, it has been proposed

to call the disease "congenital muscular hypertrophy" (Jaconsiel). Ballet and Marie also adopt the muscular hypothesis. Others place the defect in the nervous system, and one observer calls the disease "spasmodic hypertrophic spinal paralysis" (Seeligmüller). Dr. Kesteven says, commenting on Westphal's explanation:—"It would seem to be more in accordance with the physiology of muscular action to look for the cause in the inhibition of the sympathetic or vaso-motor influence upon the vessels of the muscles, arresting the removal of the chemical products of muscular action, and thus interfering with nutrition and movements. In short, the muscles may be said to be approaching to the state of *post-mortem* rigidity wherein myosin becomes developed." (*London Medical Record*, 1883.) As regards treatment, everything seems to have been tried, and nothing has done any good.

Here, next, is my case.

The patient was a man, aged 36, a labourer, and married for ten years. He was under my care and observation continuously, as in-patient and out-patient, from July, 1883, to June, 1884. The history of the man up to the time of coming under my observation is as follows:—About the age of 21 he was subject to occasional attacks of sick-headache and malaise. He began to suffer from the attacks, or "fits," to be presently described, at the age of 23, and came to the Infirmary as an in-patient on account of them about a year after they first appeared. After treatment in the Infirmary he had no attacks for a year. Then, on the recurrence of the fits, he went to the Bath Mineral Water Hospital, and very shortly after this he was removed to the Gloucester Lunatic Asylum, in consequence of an attack of mania; he says he "lost his reason, and was very violent." He was in the asylum two

years and nine days, and was discharged cured. I have not been able to ascertain if he had any fits during his stay at the asylum. He himself says that he has been troubled with the fits continuously since their first appearance, except during the one year, about twelve years ago, after treatment at the Infirmary. Five years ago—that is, when about 31 years of age—he met with an accident; an iron bar fell on his foot and injured his left great-toe. Eighteen months after the accident, whilst harvesting, he says he felt occasional severe pain over the occiput, and this was followed by "a lock-jaw." The trismus lasted ten days; during this time his jaws were firmly closed, and he was fed with liquids introduced between his teeth. The patient states that the condition of trismus came on gradually and slowly. Since the attack o tetanus, the "fits" have been more frequent and severe After this he seems to have attended frequently at the Infirmary as an out-patient.

As I have said, he was admitted to the Infirmary as in-patient, under my care, in July, 1883. The patient appeared to be fairly well in all respects in the intervals between his "fits." He was well nourished, had a good appetite, and slept fairly well. He had nothing to complain of beyond general weakness and loss of tone, and what occurred at the time of his attacks. His mental condition was perfectly sound. There was no history or indication of syphilis or alcoholism. A minute physical examination shewed that the *heart* was normal—the first sound, perhaps, prolonged; the *lungs* were normal; the *urine* was normal; the *patellar reflex* was normal and equal in both legs (after tapping the knee a few times, the characteristic spasm was set up in the muscles of the limb); *ankle clonus* was slightly present; the *cremasteric reflex* was just to be made

out; the *plantar reflex* was not present. The reactions to the constant current, applied in the usual way, and also to Faradic electricity, were normal.

During the first period of this man's residence in the Infirmary (three months) the "fits" were accurately observed on thirty-one occasions. The attacks rarely happened singly; generally there was a succession of separate attacks for an hour, or even longer; then his motor power seemed to have become exhausted. Each separate attack lasted about two minutes, and then, after an interval of two or three minutes, was succeeded by another attack, in all respects, except intensity, similar to the preceding attacks. Taking a typical example, the order and character of the phenomena observed during a "fit" are as follows:— First in order of precedence came certain phenomena of an emotional and sensory nature: the man's appearance altered; it was clear that something was going to happen; and immediately the face became flushed, passing rapidly into a condition of intense vascular turgidity; slight tremor was now seen in the muscles of the arms and legs, followed by gradual though rapidly-succeeding muscular rigidity and spasm; the teeth were ground together; the jaws tightly clenched; the facial muscles set; the arms pressed tightly against the sides; the legs fixed in extension. When questioned, the voice was noted to be muffled and indistinct; there was no loss of consciousness at any time. Matters seeming now to have reached a climax, muscular relaxation quickly set in, and restoration to the *status quo ante*. Variations as to the details of an attack were frequently observed. Thus, amongst the initial phenomena, hiccough frequently repeated, and præcordial pain of anginal character, were observed. The attacks varied greatly in intensity; sometimes they were

so severe and so frequently repeated that the patient had to keep his bed and suffered from great exhaustion; at other times, the attacks were marked by a predominance of the motor and corresponding absence of the emotional phenomena. The patient would be sitting quietly in the out-patient room; when his turn came, he would attempt to rise and walk to the table at which I sat; but the cramp would seize him in the manner characteristic of Thomsen's Disease, passing off as he persevered in his efforts to walk. Again, sitting quietly and awaiting his turn, I would address him suddenly; then the emotional phenomena, with turgidity of face, would be the first to appear, succeeded by the motor spasm.

I subjected the patient to a great variety of treatment. He took bromide and iodide of potassium, and many other things, without any relief. I gave him nitro-glycerine, with little or no effect on the anginal symptoms. The drug that seemed to produce some good effect was the Succus Conii. After taking half-ounce doses of the Succus Conii three times a day—the dose had been gradually increased to this—I find a note to the effect that the attacks had markedly decreased in number and severity. On becoming used to the drug, the good effect passed off, and I did not care to push larger doses. Subsequently, after discontinuing the Conium, I noticed, on again resuming it, that an appreciably good effect was again produced.

In the present state of nerve-pathology, and with so little experience of the affection as is now available, it would, I think, be premature to attempt to define the pathology of Thomsen's Disease. Comparison of the facts already set forth in the scanty literature of the disease with the facts of my case will, no doubt, prove suggestive enough

of complexity and difficulty. It seems to me clear that Thomsen's Disease is not simply to be defined in the terms already quoted at the beginning of this paper; it is not a disease *sui generis*. We have to do with phenomena that have far-reaching and subtle alliances, both physiological and pathological, notably shewn in the alternations of other neuroses with Thomsen's neurosis in successive generations, and the occurrence of mania, pseudo-epilepsy, and tetanus in my patient, *along with* the special motor phenomena which form so striking a feature in Thomsen's Disease. The sympathetic disturbances in my case are of great interest when placed alongside of the motor disturbances. We may, no doubt, give more or less satisfactory explanations, chiefly physiological, of isolated facts and particular phenomena; but the problems presented in Thomsen's Disease have yet to be defined in the accumulation of groupings of facts or cases of a like order.

[I am greatly indebted to Dr. Fenton Evans, House-Physician at the Infirmary, for his valuable aid during the observation of this case.]

Clinical Records.

THREE CASES OF INTESTINAL OBSTRUCTION.

By ALFRED SHEEN, M.D., Senior Surgeon, Cardiff Infirmary.

Case I.—James Searle, a sailor, age 20, single, was admitted to the Cardiff Infirmary on March 26th last, at noon, with the following history, the notes being taken at 3 p.m.:—

On the 16th, *i.e.*, ten days before his admission, he had what he called a "stoppage of water." He took an aperient pill on the 17th, which acted well on the 18th. He was frequently sick on the 17th, 18th, and 19th, but afterwards began to get better. The bowels were moved on the 19th. He then got about and was "all right," he having a daily motion till the 24th. On that day he was obliged to go to bed, suffering from pain in the abdomen, so severe that he could scarcely bear the weight of the bed-clothes. He was constantly sick all that afternoon, bringing up brownish fluid, which had a very disagreeable smell. The bowels were relieved two or three times on the 23rd, and once on the 24th, but not since, neither has he passed any fæces. He had medicine from a doctor yesterday and to-day. Such is the history of the case as given by the patient.

He has been constantly sick since admission, bringing up a brown fluid with a fæcal smell. Countenance anxious,

eyes sunk, cheeks sunk in, extremities cold, pulse small, quick; pain in abdomen round navel, but not so bad as it has been; tongue clean, moist; T. 97°; no abdominal distension; tender surface, dull on percussion, to the left and below the umbilicus; no blood or pus passed by the bowels.

Soap and water was at once injected freely into the bowels, which brought away a little fæces. The symptoms continued. As he refused operative treatment, he was ordered small quantities of ice and brandy, and liq. op. Sed. m. v. T. Belladon. m. x. every half hour. By-and-by he consented to allow me to do what was thought best, and at 7 p.m., after a consultation, I opened the abdomen by an incision along the linea alba, below the umbilicus, and seizing the first piece of intestine which presented at the wound, and which was very red, stitched it to the abdominal wall and then opened it. There was a gush of milky-looking fluid, a small quantity of which escaped into the abdomen. There was no sickness after the operation, but the collapse continued. The patient died at 4 a.m. on the 27th, eleven hours after the operation, a great deal of fluid escaping through the opening during the night.

Necropsy thirty hours after death. (By Mr. Griffiths, M.B.Lond., House Surgeon.)—Edges of wound pretty firmly united to abdominal wall. On opening the abdomen, the intestines were found to be of a brightish red colour, smooth surface, covered with lymph, with small quantities of intestinal fluid between the coils, which in some places were adherent. The large omentum, almost devoid of fat, and of a red colour, was firmly fixed to the pelvic wall; on separating this, a large coil of intestine was found firmly bound down by the omentum into the cavity of the pelvis.

The large intestine was empty and contracted.

Case II.—Jane Edwards, æt. 33, married, was admitted into the Cardiff Infirmary on the morning of April 14th, 1884, looking seriously ill. She had been under the care of Dr. Fiddian, who said she had had a miscarriage six months previously, and since then she had not been in her usual health. About fourteen days ago he was called to see her, and found her suffering from pain in the right side of the abdomen, and at the same time he observed a tumour in the right lumbar region. He gave her medicine, which relieved her pain. A few days ago he was called up in the night, the patient suffering severe pain in the same situation, which was relieved by an hypodermic injection of morphia. She says her bowels were relieved three days ago, since which there has been no motion, although her husband says there has, and sickness has been constant.

On admission she had a pinched look, and was suffering from collapse; p. 128, T. 98°; sick after everything she takes. The abdomen was not swollen. On the right side, towards the lumbar region, there was increased resistance, and a distinct swelling to be felt, although it could not be seen. No blood has been passed by the bowels. The immediate symptoms were those of intestinal obstruction. A consultation was called, and the diagnosis formed was that there was considerable thickening, probably from inflammatory mischief, at the seat of pain, and that the bowels had become involved in this; and it was decided that opening the abdomen did not offer her a fair chance of relief. She died on the evening of the 15th. It was thought probable by one or two who saw the patient that the tumour might be connected with the kidney; the short duration of the symptoms seemed

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against this supposition, which, however, at the *post mortem*, turned out to be correct.

On opening the abdomen after death, a very rare condition of things was found. A smooth, oval-shaped tumour was seen lying in the right lumbar region, the upper part of which was black, and was lying on some coils of the upper portion of the small intestines. The intestines from this point onwards, towards the rectum, were flat, contracted, and empty, but otherwise normal in appearance; and on lifting the tumour they immediately and slowly filled with air from the stomach and intestine above. On tracing the tumour, which was about the size of an elongated cocoanut, it was found to be a mass of encysted, coagulated blood, surrounding the kidney; and this blood was traced to a small anuerism (?) about the size of a pea, situated in the substance of the kidney, close to its outer surface. There are two points of interest about this case:—1. The rarity of the disease. 2. The facility with which the intestines became filled with air after lifting the tumour. This latter made me regret that I had not opened the abdomen; but it is easy to be wise after the event.

Mr. Savage says, in the *British Medical Journal*, Vol. i. 84, 454, speaking of abdominal section in these cases:—"In many instances where the case requires surgical aid, it is both useless and mischievous to make a long incision and insert the whole hand in the abdomen, amongst a mass of distended intestine, in search of the cause of obstruction, the relief of which is not always practicable. Recoveries after such procedures are but few. It is better practice to make a small opening, seize the first part of distended intestine that presents itself, stitch it to the wound, including the peritoneum, and then open it and give free

exit to retained fæces." This operation was performed in the first case, and, as an operation, was successful; but the patient was too far gone to recover; he never rallied from his previous state of collapse. An interesting point at the *post mortem* was the fact that only twelve hours after the operation the parietal and intestinal surfaces of peritoneum were pretty firmly united.

Case III.—A male child, born on the evening of June 7th, 1884. I saw the child, in consultation with Mr. W. D. J. Morris, on the 10th. There had been some retention of urine, owing, probably, to blocking of the urethra, as this symptom disappeared on some muco-pus passing from the urethra. Nothing had been passed per anum. On examination the anus was found perfect, contracting on the finger; but the finger could not be introduced beyond two inches, where the rectum terminated in a cul de sac; there was no bulging of the parts beyond when the child cried. A trochar and camula was passed into the rectum through the upper closed extremity. This was at 5 p.m. The case did not seem favourable for further operative interference. There was much tympanites, and this was relieved by puncture with Southey's trochar and canula. The child died at midnight.

A *necropsy* on the 11th revealed some fæcal extravasation into the abdominal cavity from thinning and giving way of the intestine. (This was not at the seat of puncture.) The large intestine terminated in a cul de sac adherent to the pelvic wall, and close to the distal part of the rectum reached from the anus.

Here are three interesting cases of intestinal obstruction, each differing widely as to its cause, and all ending in death. Could a different result have been looked for under any conditions of treatment? I think not. In our

treatment of these lesions one great obstacle to possible success seems to me to be the difficulty of making a differential diagnosis. Mr. H. O. Thomas, in his work on *Intestinal Obstruction*, says:—"This is not of vital importance. It would be valuable; but as it is difficult, it is satisfactory to know that curative treatment can be practised without it." A second obstacle in many cases is the active medicinal and mechanical treatment the patients have previously undergone. I think there can be no doubt that purgatives, enemata, introduction of a long tube, sweating, and inversion, &c., so far from doing good, are calculated to do much harm, besides, perhaps, entailing the loss of much valuable time. So far as my reading and experience goes, all such remedies make the patient worse, and lessen his chances of recovery, where recovery might otherwise be possible. (The use of an enema in Case I. was obviously bad treatment.) What we want to know more clearly than we do now is, what are the cases in which we may fairly rely upon treatment by sedatives, rest, and abstention from food, and what are the cases where abdominal section should be performed? Thomas, in the work referred to, gives us some guides, but they do not appear to me to be sufficient. He says:—

"It cannot be judicious surgery to perform haphazard operations because in some isolated cases the *post mortem* shews that an operation *might* have saved the patient."

"No operation should be performed unless the surgeon is convinced that it is necessary." Query.

"An *early* operation *may* be attended with better success, but only because by it the patient escapes a long period of higgledy-piggledy treatment, still in vogue. This is all that can be advanced at the present time in favour of early direct interference by abdominal section." Query.

"Is an operation required? Consider, first, the duration of the disease; second, the present condition, or that which it shews to be imminent."

"1. *Duration of the disease.*—If the patient's primary treatment has been proper, it is highly improbable that an operation will be required earlier than the third day, or later than the third week. In most instances the period for operating will be indicated about the seventh day." In what way?

"2. *Condition of the patient.*—If the pulse early continue rapid, or at a late period become so, its rate being only a little reduced or its volume increased by the opiate, with typhoid tongue, intense thirst, vomiting more than four times in the twenty-four hours, with or without collapse, think about operating, with hope of relief, if the preliminary treatment has not been faulty."

Dr. Clifford Allbutt states most distinctly that, in intestinal obstruction, therapeutics must depend on diagnosis; that if we will carefully attend to the case, diagnosis, as a rule, is not so very difficult; that in acute cases inflammation usually counts for a good deal, and that an important part of the treatment is to treat the inflammation by rest and opium; that in twists of the bowels, snaring in bands or fissures, knots in its length, are internal hernias, and are to be treated as such; *i.e.*, if not relieved by rest and sedatives, then by operation.

If we can diagnose these latter cases, I am clearly of opinion that abdominal section should be performed, and I am doubtful of the value of much preliminary treatment by rest and sedatives. How frequently do we witness "too late" operations, with resulting death, in cases of external hernia! and are not the conditions the same in internal hernia, and, therefore, the necessity for early

operation equally strong? If, in a case of internal hernia, we open the abdomen and relieve the constriction, and the patient dies, is it not just possible that he dies because we have left him too long a time without relief? Why should we be able, even in apparently unpromising cases, to perform ovariotomy successfully, and yet not be able to treat internal hernia by abdominal section successfully?

CASE OF SUBACUTE POLIOMYELITIS ANTERIOR, WITH COMMENCING PHTHISIS. Treatment by Ergotin and Iodoform. Recovery.

By R. SHINGLETON SMITH, M.D., M.R.C.P., Physician to the Bristol Royal Infirmary, Honorary Fellow of King's College, London.

Thomas B., æt. 23, bootmaker, married eighteen months, one child, was admitted to the Bristol Royal Infirmary on March 20th, 1884, with partial paralysis of both arms. Had always been strong and steady since thirteen years old, when he was laid up a month with fever. Had been getting thin for last twelve months, but was in good health till one month ago, when, after being in wet clothes for three hours, he began to have pain in the lower part of bowels, and afterwards shooting down both legs to his feet; this pain was very severe, and kept him awake night after night. Three weeks ago he found he could not pick up rivets in left hand; there was no pain in the hands, but tingling in the tips of the fingers. No history of injury to back or shock of any kind could be elicited. Has been in the habit of drinking beer freely, sometimes all the day twice in a week, but never had

delirium tremens; for the last six months has not had more than one pint a day. There is no evidence, nor is there a history, of syphilis. He has always had complete control over the bladder and bowels. For a week past not able to have complete coitus, although usually has done so about six times a week. Has been unable to walk upstairs for one week, from want of power to lift up legs.

There is no history of paralysis in family; but one brother died of consumption at eleven, and another brother is now ill with "consumption of bowels." Father and mother and seven brothers and sisters are healthy.

Present condition.—Thin, high cheek-bones, cheeks fallen in, teeth good; not anæmic; body fairly muscular, bones large. Is able to walk, and stands with eyes closed; is rather laboured and shaky in walking, but does not drag either leg; fell down on attempting to walk upstairs. Is able to lift his legs up from the bed, but only with considerable effort; arms are wasted, and he has very imperfect muscular action of hands. Is not able to cut up his food, or dress himself; can just unfasten his shirt-buttons. Is not able to lift up either arm to the horizontal line; grasp is feeble with both hands. Unable to abduct arm from side; on arm being lifted up, it falls again immediately. Pronation of fore-arm perfect; supination impaired; flexion of hand impaired; extension almost absent. Small opposition of thumb to forefinger. Thenar muscles much wasted; fingers somewhat claw-like, from wasting of interossei. Deltoids are absolutely powerless, but not wasted. Sensation is normal everywhere. Reflexes, plantar, triceps, tendo-achillis, and knee-jerk absent; no ankle clonus. Cremasteric reflex present. Sight good; pupils normal. Pulse 84. Electrical reactions: fore-arms, front and back, respond to the normal induced current;

but thenar muscles are sensibly diminished in irritability, especially the right. The leg muscles respond normally.

The facial muscles appear to be wasted, but there is no impairment of their action; he can whistle, blow out cheeks, open and screw up lids, laugh, &c.

The breathing is chiefly abdominal, but the thoracic movement is perfect.

Fibrillary tremors are constantly visible in the fore arms, arms, and shoulder muscles.

The patient was ordered to remain at rest in the recumbent position, was to have a liberal diet, to take two grains of ergotin in pill every four hours, and on

March 29th, oleate of mercury, 10 per cent., was applied down the spine twice daily.

March 28th. Electrical reactions fairly good, except in thenar and hypothenar eminences, which contract only feebly with a strong current; wasting of those muscles very marked.

March 29th. Deltoids quite paralysed, but not markedly wasted. Constant fibrillary tremors of deltoids, rhomboids, infra-spinati, and other scapular muscles; slight diminution of faradic reaction in scapular muscles; rhomboids, latissimus dorsi, and lumbar muscles respond well to normal strength. The leg muscles respond well, and are not now wasting.

The ergotin was increased to four grains every four hours.

April 4th. Arms not gaining strength; grasp is very deficient. Patient has a difficulty in raising himself from recumbent posture; shuffles with difficulty on to left elbow, and then pushes himself up with a jerk. He complains of twitchings in the legs, and constant muscular tremors are visible in the extensors of fore arms, as well

as in the muscles about the shoulders. There is no dysphagia, and speech is normal. No complaint of pains in limbs or back. Occasional headache, in consequence of which the ergotin was reduced to two-grain doses.

April 5th. Patient feels weak, has no pain, but marked twitchings of all the muscles of limbs. Left thumb muscles give only slight response to strongest secondary current of one-celled Stöhrer battery; right thumb muscles give none.

Liq. Vesicatorius was applied on each side of the spine, at middle and lower cervical regions, for about six inches in length.

April 11th. He feels stronger, has no pains and no sickness, not now complaining of headache. Is again taking four grains of ergotin every four hours.

April 22nd. In consequence of diarrhœa, the ergotin was discontinued.

April 26th. Muscular power much improved. Though he cannot cut up his dinner, yet he can feed himself. The grasp of both hands is much stronger, although still weak. Is now able to raise the left arm above his head, but not the right.

General health has not been satisfactory. He complains of cough, has a little expectoration, and there is a patch of dulness, with feeble breath-sounds, and crepitation below the left clavicle. Temperature has been of a hectic type *(see over)*.

Sputum examined for tuberculous bacilli, but with a negative result. Ordered iodoform, one grain three times a day in pill, and cod-liver oil, a teaspoonful thrice daily.

May 3rd. Grasp had greatly improved; can now do up his shirt-buttons, and can raise both arms above his head rapidly and without difficulty. Electric reactions

now almost normal; thumb muscles respond to a current only slightly stronger than normal. Lung sounds much improved. No dulness or crepitation at the left apex, less cough, no expectoration. Taking two grains of iodoform three times a day. Made out-patient May 9th; steadily improving.

		M.	E.			M.	E.
March	20th.	98·6	100	April	12th.	99·2	99·6
,,	21st.	98·4	99·4	,,	13th.	99	101·4
,,	22nd.	98·4	100	,,	14th.	98·2	101
,,	23rd.	99	100·4	,,	15th.	98·6	100·6
,,	24th.	99·4	100	,,	16th.	98	100·6
,,	25th.	99	99·2	,,	17th.	98·6	100
,,	26th.	98·6	100	,,	18th.	98·4	100·6
,,	27th.	99·6	100·6	,,	19th.	98·4	101
,,	28th.	99·6	100·4	,,	20th.	98·8	101
,,	29th.	98·8	100·4	,,	21st.	98·6	102
,,	30th.	99·4	100	,,	22nd.	100	101
,,	31st.	99	101·2	,,	23rd.	98·8	100·2
April	1st.	101	101·4	,,	24th.	98·8	102
,,	2nd.	100·4	101·4	,,	25th.	98·8	99·6
,,	3rd.	99·4	100·8	,,	26th.	98·6	99
,,	4th.	99	100·6	,,	27th.	98·6	100
,,	5th.	98·6	100·6	,,	28th.	98·6	101
,,	6th.	99	102	,,	29th.	99	99
,,	7th.	99	101·6	,,	30th.	98·6	99·4
,,	8th.	99·2	101·4	May	1st.	98·4	99
,,	9th.	98·4	100	,,	2nd.	98·4	99
,,	10th.	99	101	,,	3rd.	98·4	98·6
,,	11th.	99	101·4	,,	4th.	98·4	98·6

This case presents several points of interest, of which the principal are the following:—

The rapidly-increasing loss of power was manifest from day to day, and the diminution in electric reaction was decided from week to week; there appeared also to be muscular wasting in the fore-arms and hands, but this could not be remarked in the measurements taken at different times.

There could be no room for doubt as to the diagnosis. The disease was too acute for progressive muscular atrophy, and the diminution of electric contractility where there was not much muscular wasting excluded this hypothesis. The usual indications of myelitis and meningitis were altogether absent, but the existence of an evening pyrexia gave rise to the idea that there might be a more active inflammatory process in the cord than is usual with poliomyelitis. A perusal of the record of temperature will shew that the variations observed from time to time were not dependent on the disease of the cord which gave rise to the muscular weakness and wasting, inasmuch as the temperature was not much above the normal at the time when the weakness was steadily increasing, whereas at a later period, when the evening temperature was 101·4° to 102°, the muscular condition was either stationary or improving. Careful observation of the daily temperature led to the suspicion that some other than the spinal cord disease was giving rise to the evening hectic; and then the existence of cough, with expectoration and suspicious physical signs of disease at the apex of the left lung, gave an explanation of the anomalous temperature such as would not be likely to result from a subacute or chronic poliomyelitis.

As regards the lung disease, there was no evidence of anything wrong at the time of the patient's admission, but afterwards the dulness, with defective breathing and moist

sounds, gave clear evidence of mischief in the left apex. What was the nature of this disease? The examination of the sputum gave only negative evidence; no tuberculous bacilli could be found on one occasion, and afterwards the expectoration had so rapidly subsided under the influence of iodoform, that none could be obtained for subsequent examination. The character of the pyrexia, the general aspect and symptoms of the patient, his family history, and his physical signs, all appeared to bear out the view that there was a patch of tubercular disease at the apex of the lung. On the other hand, the rapidity with which the dulness cleared up, and the cough and expectoration subsided, support the negative view given by the one examination of the sputum, that the disease in the lung may have been of a simple inflammatory character.

The case appears to shew the value of ergotin in the treatment of early spinal disease; it also gives evidence in favour of iodoform in early lung disease.

P.S.—On May 27th the patient again came under observation; his muscular power had steadily improved, and he had gained in weight five pounds in three weeks. But the lung condition was not satisfactory; cough had been troublesome for ten days, and there was much pain round the left side of his chest. Loud rasping friction sound was audible from the left clavicle down to the fourth rib, and there was infra-clavicular dulness. Pulse was 120, temp. 99°.

SUDDEN DEATH FROM ASPHYXIA IN A PHTHISICAL BOY.

By W. Barrett Roué. M.D., M.S., F.R.A.S., Physician to the Bristol Hospital for Sick Children.

E. P. A., a wretched, neglected-looking boy, æt. 11, was admitted into the above hospital. The history of his case was that of a cold, resulting in some chest affection, for which he had had no medical advice. A constant cough and pain in the chest had been present for five months. On my first visit to the wards after the boy's admission, I found him sitting up in bed, breathing rather rapidly, but not seeming much distressed, and in the act of expectorating purulent sputum into a receptacle already nearly full.

On physical examination there appeared to be no flattening or falling in of the chest on either side, but the respiration was shallow. There was marked dulness at the right apex, both in front and behind, and large moist sounds were heard over the upper portion of the same lung, accompanied by small crepitations. There was increased vocal resonance all over the remainder of the right lung. On the left side there was exaggerated breathing, which I considered to be merely compensatory, with slightly prolonged expiration. Otherwise the lung seemed healthy.

The boy was treated for his cough, and an attempt was made to improve his general condition by the administration of cod-liver oil, milk, and beef-tea. In spite of this treatment, he steadily decreased in weight, as the following will show:—May 3rd, weight 51½ lbs.; 10th, 50 lbs.; 17th, 48 lbs. The temperature varied from 100° to 104°, usually highest at night-time. From these

symptoms I considered the prognosis to be unfavourable, but did not by any means apprehend a very rapid or sudden termination to the case.

On May 19th, whilst sitting up in bed, and without any severe cough, blood mixed with air began to well from his nose and mouth, and in about three or four minutes he was dead, as it appeared, simply from asphyxia, the trachea and the bronchi being full of blood, which the boy was unable to expel.

Post-mortem Examination.—Body much emaciated; face mottled blue and red. Heart healthy; right side gorged with thick black blood, left side empty. The right lung was solidified throughout, except a small portion of the extreme apex, and composed of degenerated cheesy-looking material. There was a large irregular cavity, about the size of a goose's egg, or larger, in the lower part of the upper lobe, extending for a considerable distance into the lobe beneath. This cavity was situated more toward the posterior than the anterior aspect of the chest; indeed, there was scarcely any lung-tissue left beneath the pleura in the former situation. The cavity was full of soft, recent blood-clot, which passed into the communicating bronchus, and upwards towards the trachea. On removing the blood-clot, an artery about the size of a crow-quill was found severed, and the ends hanging down against the walls of the cavity, one on either side. This vessel, previous to its rupture, had evidently passed right across the cavity. The left lung was emphysematous, the air-cells and bronchial tubes were full of blood, and a clot passed a considerable distance up the left large bronchus; otherwise the lung was healthy.

Remarks.—Up to the moment of the occurrence of the hæmorrhage I think we have a fairly clear case of a

condition which, for want of a better name, I will call "pneumonic phthisis." The little patient had probably suffered from an attack of pneumonia in the right lung, the products of which failing to be absorbed, had broken down, and then gradual disintegration had caused the cavity. The important question is, What was the immediate cause of death? Two causes only, I think, are worthy of consideration; viz., syncope from loss of blood, and asphyxia. There is certainly a third possible cause in shock; but the difficulties of arriving at any reliable conclusions as to this condition in children, when the physical signs of organic mischief are so decided as in this case, justify the little notice I have taken of shock as an agent of death. With regard, then, to syncope from loss of blood, the post-mortem evidence is certainly against it. In the first place, the condition of the body strikes us: the face was mottled and of a purple colour; in death from syncope it is usually very pale. In the second place, the right side of the heart was gorged with blood; in death from syncope all the cavities are usually empty. Really the patient lost very little blood, considering the rapidity of his death. Upon consideration, then, asphyxia seems to be the immediate cause of death suggested by the post-mortem examination, for the following reasons:—

1st. The right side of the heart was gorged, while the left was empty.

2nd. The large and smaller bronchi in both lungs, and even the air-cells in the sound lung, were filled with blood, so as effectually to cut off all communication between the air and the air-cells.

3rd. The face bore the mottled and purple hue so well known in cases of death from suffocation.

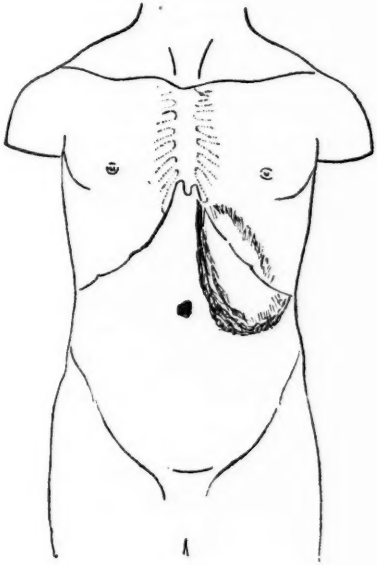
CASE OF SUBDIAPHRAGMATIC ABSCESS OF THE LEFT SIDE.

By J. HARPER, L.R.C.P. Lond., Surgeon to the North Devon Infirmary, Barnstaple.

Abscesses in the upper part of the left side of the abdomen are of rare occurrence; they are interesting and anxious cases, and not many of them are recorded; this must be my excuse for troubling you with an isolated case, but it is the only one I have met with in my practice of over twenty-three years.

A male, 34 years of age, in the early part of August, 1876, contracted typhoid fever; it was a mild attack, and ran the usual course. He was convalescent and down stairs for about a week, when, from an error in his diet (over-feeding), he had a relapse, which commenced on October the 1st, and again ran through the regular course of the disease. During this second attack he had pleurisy of the left side, from which he speedily recovered, and was quite free from any chest affection. After being about for five weeks, he was suddenly seized with violent pain over the costal cartilages of the 7th and 8th left ribs. After a day or two a swelling the size of two fingers could be detected, extending from the ensiform cartilage towards the left side, behind and below the ribs. He was ordered to rest; the swelling covered with Ext. Belladonnæ; and after a day or two it seemed to get smaller. This was in the second week of February, 1877. After a day or two, without any apparent cause, the swelling commenced to increase in size, occupying nearly the whole of the left hypochondriac region, and extending downwards to an

inch below the umbilicus, as shewn in the accompanying diagram.



On March 4th the swelling was beginning to extend upwards, over the cartilage of the ribs, and fluctuation was distinct. Dr. Richard Budd saw him with me, and we decided to use the aspirator. Nearly half a pint of thick, dirty-looking pus was drawn off, and the wound of the trocar covered with lint and collodion. The next day he was much the same; on the 6th the abscess was fuller; on March 8th the abscess was discharging freely through the trocar wound; pus looking healthy.

11th. The abscess was discharging; but as the matter was thick and occasionally plugging up the wound, I increased the size of the opening.

21st. The wound had again healed; the swelling was tense and very tender. I made a free incision, and about twelve ounces of pus came away, and it discharged freely into the poultices subsequently applied.

April 6th. Opened another abscess over the ribs. He progressed slowly from this time up to the 14th of June, when he was able to leave for the seaside. The abscess still discharging. The change much improved his general health, but the abscess did not completely heal until the end of October.

In the *Guy's Hospital Reports* for 1874, Vol. 19, several cases are recorded by the late Dr. C. Hilton Fagge, but no mention is made of this kind of abscess in any of the text-books I consulted; and even the *Medical Digest* does not refer to the series of cases in the *Guy's Hospital Reports*.

NOTES OF CASES OF DIPHTHERITIC PARALYSIS, WITH REMARKS.

By ANDREW S. CURRIE, M.D., Lydney, Gloucester.

In September, 1878, a boy, æt. 8, was brought to me, who was suffering from motor paralysis of the lower extremities. The loss of power was not absolute, for the child could stand when supported by some one. The symptoms had been in existence for about a week, and had supervened gradually. First, unsteadiness and a liability to stumble readily, and, afterwards, progressive difficulty in locomotion, were observed. No paralysis, or paresis, of any other part was observed, and there were no sensory troubles. At first, no history of previous illness could be obtained which might in any way account for the origin of the disorder; but on further enquiry being made, it was ascertained that six weeks prior to

the development of the paretic symptoms the boy had complained of sore throat, but no particular attention had been paid to the ailment. Under the use of steel and nervine tonics the patient recovered completely.

In February last two children from the same neighbourhood were brought to me almost simultaneously. Both had suffered about the same time from sore throat, accompanied with glandular enlargement, and they had probably been infected from the same source. They first came under my observation between three and four weeks after their recovery from the throat affection.

F. W., a girl seven years of age, had been noticed to speak through her nose for a fortnight prior to my seeing her. She complained of pains in the limbs, and especially in the knees, and of great weakness. Her mother said she was almost blind.

I noted the following points: Great impairment of patellar tendon reflex on both sides. Right internal strabismus with diplopia. Pupils moderately dilated and fairly sensitive to light. No morbid appearances detected by ophthalmoscopic examination. Uncertain, straddling gait. Paretic condition of the lower limbs, but no marked impairment of sensibility. No affection of the sphincter muscles.

This child recovered rapidly and completely under treatment by steel and nux vomica.

The next case was that of a girl ten years of age. The symptoms were, briefly: Snuffling voice, amblyopia, occasional strabismus, great impairment of muscular tone generally, knee-jerk almost entirely lost. In this case, as in the preceding, the discs and retinæ were healthy. The treatment was the same, and the results were equally satisfactory.

The fourth case presented some features of special and peculiar interest. Unlike the three first, the diphtheritic affection was most pronounced. It would take up too much time and space to give a detailed history of the actual diphtheritic attack, as I shall refer hereafter to a peculiar feature in the pulse.

During the pyrexial stage the patient was treated by kairin, and the case is referred to in a communication on the therapeutics of kairin which I made to the Belfast meeting of the British Medical Association last July.

A. T. was a girl sixteen years of age, above the average height, well developed, and prior to her illness inclined to embonpoint. The diphtheritic attack came on when the patient was on a visit to her married sister. She returned to her home, which is a farm-house healthily situated on the brow of a hill, towards the end of the first week in August. At this time she was suffering from very pronounced palatal paralysis. She had a nasal snuffling voice, and fluids regurgitated through the nostrils. This latter symptom gradually passed off, and altogether the girl appeared to be convalescent, according to her friends' account; for at this time she had no medical attendance.

I saw A. T. again on the evening of the 30th of August. She was troubled with a constant flow of mucus, which her parents thought was a sign of consumption; but there was no cough. There was at this time nasal voice, but no regurgitation through the nostrils. The uvula was pendulous, insensitive and motionless, the fauces generally red and congested, and bathed with somewhat viscid mucus. Temp. 100, pulse 110. There had been considerable emaciation since my last visit to the patient, on 28th July. The chest percussion note was resonant, and auscultation revealed nothing beyond feeble respiratory

murmur and slight increase of vocal resonance. Urine acid, 1026, free from albumen.

Strong soups, milk, cream and jellies, as well as a moderate amount of old port wine, were ordered, and a mixture containing nitro-hydrochloric acid and compound tincture of bark was prescribed.

31st.—Patient for the first time complained of feeling of pins and needles, chiefly in her hands and feet. She could not tell where her legs were in bed without looking. The limbs began to be tremulous, and for the first time the patient became unable to feed herself or to walk without assistance.

Sept. 2nd.—The patient stated that she was much better; her appetite had improved, and she was sleeping well at night. She had derived much comfort from hot sponging, which I had recommended. The tongue was clean and the pulse stronger, but I was much struck by the emaciation, which appeared to be progressing rapidly. The mother and sister had remarked the same thing to one another before I spoke to them of it. This emaciation was general, but was chiefly noticeable in the muscles of the arms and legs. I now noticed for the first time total absence of patellar tendon reflex. There was no ankle clonus. The chest was again carefully examined, but with purely negative results. The sister reported that the patient had been quite unable to come down stairs this morning even with assistance; but she was carried down and laid on the couch as usual at her own request.

I asked the girl to try and walk. She could not rise from the couch without assistance, though she could raise herself into a sitting posture. Supported by me on one side, she staggered across the room, throwing out her limbs in a wild ataxic manner, raising her heels to a con-

siderable height and strongly dorso-flexing her toes. There were no lightning or other pains.

Warm bathing of the limbs, with vigorous friction, was ordered, and three minim doses of liquor strychniae were added to the bark mixture.

Next day there was no improvement. Patient complained of severe pain in lumbar portion of spine.

Sept. 4th.—On awaking she complained of severe abdominal pains. About 11 a.m. she had an alarming syncopal attack. At my visit at 11.30 a.m. the pains had almost ceased; but the breathing was short, shallow, and hurried, and there were large mucous râles all over the chest. The paralytic condition had deepened, and the patient endeavoured in vain to sit up. Deglutition had become impossible, and a nutritive enema was not retained.

At 6.30 p.m. the patient appeared to be moribund. She lay on her side, with the saliva dribbling from her mouth and wetting the pillow. At 3 a.m. on the following morning she became very sick and was greatly relieved, but the improvement was illusory. She died about three o'clock in the afternoon of the 5th Sept. Her mind was clear to the last, and shortly before her death she gave instructions about her funeral arrangements.

Unfortunately no post-mortem could be obtained.

In regard to this last case, the point which struck me with most force was the extraordinary rapidity of emaciation. It is well known that wasting occurs more or less in diphtheria, as well as in other exhausting diseases; but the question at once arises, Is the cause of wasting the same in all? Is it due to tissue waste induced by pyrexia? If this explanation might serve in the actual diphtheritic attack, it would not avail to explain the great loss

of flesh in the last few days of life; for the pyrexia then was slight.

Again, we can scarcely attribute it to deficiency of aliment and non-assimilation; for the appetite was exceptionally good, and there was no evidence of any gastric disturbance. We must, moreover, eliminate another frequent cause of emaciation; viz., albuminuria. In July there was a considerable quantity of albumen in the urine; but the condition was temporary, and in the last week of life there was not a trace of albumen in the urine. Had there then been any albumen, or had there been low specific gravity of the urine, with increase in its quantity, one would have been disposed to have found in this fact the explanation required. It is now many years since Sir William Jenner pointed out that emaciation was often diagnostic of albuminoid disease.* The most probable explanation in this case is, to quote Sir James Paget, that the muscular atrophy was "due to changes in the central organs of the nervous system."† The late Professor Laycock used to teach that many cases of atrophy were instances of what he termed trophic neuroses, and he believed that there was a trophic centre, probably in the medulla oblongata. But we see cases of muscular atrophy in nervous disease limited to the spinal cord, as in anterior polio-myelitis, and there is now no doubt that the giant cells in the anterior cornua, besides representing muscular movements, or more correctly, according to Dr. Hughlings-Jackson, groups of muscular movements, govern also nutrition; and in this instance I believe that post-mortem examination would probably have revealed inflammatory and degenerative changes,

* *Medical Times and Gazette*, 1860, Vol. I., p. 465.

† *Lectures on Surgical Pathology*, 4th Edition, p. 93.

not merely in the medulla, but in the anterior columns of the cord, possibly also in the anterior nerve roots; and not only would this condition have accounted for the atrophic changes, but it would have afforded a valid explanation of the paresis.

Changes such as I have named were found in five post-mortem examinations of cases of diphtheritic paralysis by M. Déjerine as far back as 1878.* I have not been able to find any reference to this question of atrophy in diphtheritic paralysis as a characteristic feature of the disease in any of the authors whom I have consulted, and I am inclined to believe that it has not been much observed hitherto, because there is no reference to it in Dr. Neale's *Medical Digest* (last Edition). In the article "Diphtheria," in Quain's *Dictionary of Medicine*,† Sir J. Rose Cormack speaks of emaciation as a striking feature of the actual disease, and says that "the albuminous urine of diphtheria . . . is the expression of rapid waste of tissues;" but in his article, "Diphtheritic Paralysis,"‡ in the same work, this point is not referred to. I have already referred to the fact, with which every physician is familiar, that early and rapid atrophy is common in cases of spinal paralysis; but in the case of diphtheritic paralysis this feature is of special interest, both as throwing doubt on the theory that it is generally a paralysis of peripheral origin, and also as a clinical means of determining the *locus in quo* of the lesion. The most frequent spot of election for the development of morbid changes, judging from published cases, would appear to be in the medulla oblongata. The symptoms, as was long ago pointed out by Duchenne,§ will vary

* *British Medical Journal*, 1878, Vol. II., p. 477.
† Vol. I., 378. ‡ *Loc. Cit.*, Vol. II., 1098.
§ *Selections from the Works of Duchenne*, Poore's translation, p. 356.

according to the part of the medulla attacked. Thus in some, in fact in most cases, the paralysis is limited to the soft palate, and to this fact is probably due the theory, endorsed by Sir J. Rose Cormack, that diphtherial paralysis is peripheral in origin. On this point Duchenne observes: "The latter (palatal paralysis) might be looked upon as peripheral, and due to the inflammation of the region; but with it, or soon after, appear, but too often, other formidable symptoms which have not as yet received sufficient attention, and which, when carefully analysed, teach us, as I believe I have shown, that they are probably signs of the disease of the medulla oblongata." He proposes to call the affection *bulbar diphtheritic palsy*, and remarks of it:

"1. That it is symptomatic of disease of the medulla oblongata, principally the bulb.

"2. That the symptoms vary according as the nuclei are attacked successively, or together, or partially.

"3. That they are fugitive, but that many of the cases prove fatal."

All the cases I have quoted showed more or less involvement of the medulla, and the last probably proved fatal chiefly from implication of the spinal accessory nucleus.

Probably in the case of A. T. the very marked fall in the pulse rate which was observed was due even at that early stage to the action of the diphtheritic poison on the inhibitory fibres of the vagus. An interesting proof of this poisonous influence of diphtheria on the pneumo-gastrics is furnished by a case observed by Sir William Jenner, and quoted by the late Sir Thomas Watson,* in which the pulse fell to 32 and then to 24

* *Lectures on Principles and Practice of Physic*, 5th Edition, Vol. I., p. 895.

beats in the minute, the boy ultimately dying apparently of simple arrest of the heart's action.

Probably, then, in most cases of fatal diphtherial paralysis distinct organic changes will be found in the medulla, and sometimes also in the spinal cord. It is doubtless true that we get similar paralyses as sequelæ of typhoid and other acute infectious disorders, and also as a result of the introduction of certain poisons into the system. But it is, I think, no less true that we cannot any longer accept the opinion of Sir Thomas Watson that "we cannot suppose that the nervous symptoms—transient and wandering as they often are—can have their cause in any grave or material damage in the nervous centres."* The cases of Déjerine which I have quoted contradict this view, and doubtless as time goes on more will be added to our knowledge on this point.

Postscript.—Since this paper was written I have come upon a passage in the last edition of Dr. Hammond's work on *Diseases of the Nervous System* which bears upon the subject of the trophic centres, and which it may not be out of place to quote: "In admitting the existence of trophic cells in the anterior tract of grey matter of the spinal cord, I have been influenced by what I consider to be the weight of evidence. The fact is one which, in the present state of our knowledge, is not capable of absolute demonstration; but the subject is of such a character as scarcely to require proof of that nature. The inference for their existence is as strong as that which we draw relative to the presence in the spinal cord of groups of cells specially in relation with the functions of motion and sensation. As we have seen, there are affections of

* *Loc. Cit.*, p. 895. Trousseau expresses the same opinion in his *Clinical Lectures* (New Sydenham Society's translation), Vol. II., p. 565.

the cord in which there are both paralysis and atrophy. In such cases we have good reasons for concluding that the cells which are in nervous connection with the paralyzed and atrophied muscles have both motor and nutrient properties."*

With regard to the question of the peripheral or central origin of the paretic disorders, possibly the view of Dr. Senator might seem to be most in accord with the results of clinical observation. He remarks: "The few severe and fatal instances—those especially in which, by degrees, almost the whole of the muscular system becomes involved—impress one more with the idea of a central than of a peripheral paralysis. . . . On the other hand, it is difficult to say what may be the precise cause of those really peripheral paralyses which form the great majority."† I am inclined to think, however, that the distinction is somewhat arbitrary and artificial. In the case of E.W. the paretic condition of the lower limbs was so slight as almost to escape observation; but the knee-jerk was almost totally absent, showing some affection—transient, no doubt—of the lumbar portion of the cord; and I think that impairment or absence of the patellar reflex will be found in many cases in which, at the first glance, one would otherwise think the nervous disorder was limited to the medulla.

* *Diseases of the Nervous System*, 7th Edition, 1881, p. 533.

† *German Clinical Lectures*, 2nd series, p. 425. (New Sydenham Society.)

Notes on Books.

The Collective Investigation Record of the British Medical Association. Vol. II. July, 1884.

PROBABLY no scheme for the advancement of medical science was ever started under more favourable auspices than this collective investigation one of the British Medical Association. Prominent leaders in the profession, praised, and promoted it on platform, paper, and committee in the metropolis; and emissaries of accredited talent and eloquence were sent into the provinces to preach to us this new gospel of scientific research. Everywhere their doctrines have been received with a chorus of assent; questions in scientific medicine were to be answered by the overwhelming mass, and not by the unsupported individual; the untrustworthiness of individual labours in the closet was to be replaced by the generalised experiences of the practitioner in public; and the groping investigations of the medical theorist were to be supplemented, or rather replaced, by the accurate records of the practical worker, as figures, facts, and statistics. *Parturiunt montes, nascetur*—let us see what.

We have before us, in the shape of a goodly octavo of 208 pages, the second volume of records of this Collective Investigation Committee. The greater portion of the volume is concerned with a Report on Acute Pneumonia, the lesser portion with a preliminary report on Puerperal Pyrexia. This lesser portion, as being incomplete, we shall not here deal with, but shall content ourselves with an examination of the results of the major effort. Considering the amount expended on this work—six hundred pounds—we have a right to expect something noteworthy.

We have systematised for us, under various headings, the reports of 1,065 cases. The first thing one naturally turns to is the trustworthiness of the reporters. The men who are most likely to give us satisfactory answers to the queries pro-

pounded are the various teachers in our medical schools, the physicians to our hospitals, the men whom, in consultation or general practice, we know to have most experience of the complaint and most knowledge of it. We have gone carefully over the names of those who have made the returns, and we have discovered among them scarcely one which, either from general reputation in these islands or from local reputation in our own district, deserves to be heard as of any authority. That our hospital and consulting physicians practically ignore these inquisitive cards there can be no doubt. The fact is patent to anyone who looks. These are the men who see most of the disease, and know most of the subject, and who are most competent to give returns. Why do they ignore the queries? Do they distrust the process? We fear there is no other explanation possible.

To begin with, therefore, we submit that those most competent to answer refuse to do so, and the trustworthiness of the report is thus, in the first place, weakened.

The report begins with two articles: one on "Epidemics of British Pneumonia," by Dr. Octavius Sturges; the other on "Foreign Pneumonia," by Dr. Sidney Coupland. The nature of these short *résumés* makes us wish that each of these gentlemen had been presented with £300 to give us the best of their brains on the subject. As it is, in their preliminary notes, these two tell us far more than all the other thousand odd do; and there is no saying how much more knowledge the stimulus of a £300 prize to each might have added.

The first table has reference chiefly to the distribution of cases over the seasons. As the summariser judiciously remarks, "An inquiry that deals with but a small proportion of cases occurring in the country is hardly one from which to draw precisely accurate conclusions." We agree with him, and say nothing further than that the greatest number of returns would probably be made not very long after the issue of the cards—which would agree with the table.

As to the "Observers and Localities," the reporter says:—"Concerning the geographical distribution of the disease, no inferences can be drawn from these returns." We agree with him here also, and ignore the appended table accordingly.

Abstracts exhibiting the number of cases and the mortality at various ages, and subsequent on dietetic habits, follow. We are told that the maximum mortality of both sexes under 70 is between 50 and 55 years, and this we are asked to

believe from a grand total of 26 males and 15 females! It seems that drunkenness and starvation increase mortality, which is nothing new; but, to the credit side of the account, children are included among the total abstainers and the temperate, giving very impressive figures, certainly, but a mode of compiling statistics which we would expect rather from a temperance hospital than from a committee of our leading medical association.

Abstract IV. actually shews that the worst sanitation, both of houses and districts, gives the lowest mortality! This is so startling that we must quote verbatim:—"If, however, the instances where sanitation is reported 'good' both for house and district be compared with those in which it is 'indifferent' or 'bad' both for house and district, it will be found that Series B shews the worst of the three. Yet this is the series of lowest mortality; and the 126 exhibiting bad sanitary conditions have a mortality of but 16, or 1 in 8; while the 144 under good sanitary conditions have a mortality of 26, or 1 in $5\frac{1}{2}$." What a commentary on the value of barren statistics!

The next abstract refers to the locality and climatic conditions. The veriest tyro in statistical manipulation would know that the tables here presented would be absolutely valueless unless compared at the same time with the actual proportions of population residing on dry or damp soil, exposed or confined situations, the winds prevailing in different parts and at various seasons, and so forth. It is the same as if we had concluded that because only one case was reported from Bristol, with its quarter of a million or so of inhabitants, and two cases occurred on the breezy and barren Mendips, therefore pneumonia was *twice* as prevalent in exposed as in low-lying situations. Seriously, and without exaggeration, this is the line of reasoning followed.

Abstract VII. is simply useless.

Abstract VIII. deals with premonitory symptoms and the onset of the attack. As the writer says, "It would be undesirable to go behind these returns, and to arbitrarily decide what should or should not be considered as a premonitory symptom." Why, then, ask for the figures? And surely it did not want a thousand odd replies from men who have passed their examinations to tell us less than the most ordinary text-book.

Abstracts IX., X., and XI., dealing with the part of the lung affected, the duration of the fever, and the termination

of the fever respectively, present us with no new facts. Abstract XII., referring to sequelæ, tells us, among other things of about equal value, that debility followed after 14 cases of acute pneumonia, cough in 12, and bronchitis in 10, out of a total of 1,065 cases. To find cough and bronchitis occupying separate tables as sequelæ of pneumonia is curious enough; but to find debility classed as an independent sequela of one of our most dangerous acute diseases in only 14 cases out of a thousand is simply ridiculous.

The *practical* outcome of the replies of all these practitioners we give in the writer's own words:—"It is manifest that the lines of treatment are so various as not to permit of any value being attached to a comparison of mortality." Surely this is the classical mouse of the mountains in travail at last!

In conclusion, we submit that this is not the way to promote science,—by polling the impressions of its practitioners. The variables and contingencies are so numerous and so important that they cannot, as in this instance, be ignored. To ignore these is to nullify the whole work. And even if the results of this questioning were to be every one trustworthy, drawn up, criticised, and tabulated by skilled observers, we fail to see what new truth this galloping over the surface of disease can bring forth. We have been galloping over disease for centuries, and the outcomes are abundant enough in myriads of works in a score of languages. We want now-a-days to attack disease from the bottom. The work must be one of concentrated labour by the most penetrating intellects, with every opportunity to study disease at the bedside and in the laboratory, and not of vague recollections jotted down in the midst of other pursuits by the rank and file, and huddled into columns by committees. No doubt the Collective Investigation Committee will soon come to a natural and timely end; in the meantime we would express our regret that so much money of the British Medical Association, which might go to its excellent benevolent fund, should be expended on an undertaking so palpably useless as this one.

Syphilis and Pseudo-Syphilis. By ALFRED COOPER, F.R.C.S. Pp. 339. London: J. & A. CHURCHILL. 1884.

PROBABLY on no single disease have more monographs appeared than on Syphilis. Difficult and complicated as is the subject in theory as well as in practice, it is still one which

readily lends itself to literary handling. It has an interesting history, which can be discussed with some show of learning by the help of a few quotations; there is a considerable want of definiteness about its actual symptoms and progress, which leaves convenient openings for literary disquisition; and, lastly, there is an absence of that necessity for laborious and minute investigations into its pathological anatomy, which are not relished by the mere scribbler. For these reasons we are inclined to look with some suspicion on such a work as that before us, and all the more so, perhaps, that it is from the pen of one who is attached to a special hospital. But a perusal of the work dispels our suspicions. It is a really able work, containing nothing strikingly novel, but well and clearly written, and fully up to date.

There is little to be noted in the work in the way of quotation or criticism. We are somewhat doubtful of the propriety of the term Pseudo-Syphilis for a disease altogether different and distinct from Syphilis. Shall we ever get one definite name which will satisfy all men for the soft venereal ulcer? Here are the author's views—the views of the great majority of the profession, it need scarcely be said—on the relations of syphilis and the soft sore:

"1. The disease known as Syphilis is due to the action of a specific virus, a pathological agent, separate and distinct from every other animal poison, and never originating *de novo*.

"2. The soft venereal ulcer (pseudo-syphilis) is due to the action of irritating secretions, which, so far from being identical with the poison of syphilis, are altogether different and distinct from it. Such an ulcer may, and frequently does, arise *de novo* from inoculation of the products of inflammation, and may then be transmitted from one individual to another.

"3. The virus of syphilis may be commingled with the secretions of a pseudo-syphilitic sore, or with secretions which by themselves would cause such a sore. In either case the resulting ulceration would possess double properties, evidences of which would sooner or later be exhibited."

The propositions thus clearly enunciated are argued out with great freshness and vigour. On the important subject of syphilis and vaccination, the views of the author, that pure vaccine not mingled with blood will not convey infection, may have to be modified by the recent unfortunate experience of Dr. Cory. Otherwise, the whole of this section is most praiseworthy.

The chapters on syphilitic affections of the various organs and systems are particularly good, especially so the chapter on Syphilitic Affections of the Nervous System. The chapter on Hereditary Syphilis also is worthy of special mention for its excellence.

The chapter on the Prevention of Syphilis presents the thing in a nutshell:—"A large majority of the young men of the upper and middle classes suffer in youth from some form of venereal disease, and among the lower classes syphilis is terribly common and often very severe. . . . The source of the virus is prostitution. . . . No human means are sufficient to abolish prostitution. . . . Not only prostitution, but syphilis as well, can be diminished by properly regulated official supervision." *Ergo*—the conclusion is obvious.

An eminently practical chapter on Treatment concludes what is, perhaps, the most noteworthy work on Syphilis which has appeared in recent years.

Materia Medica and Therapeutics: an Introduction to the Rational Treatment of Disease. By J. MITCHELL BRUCE, M.A. Aberd., M.D. Lond. London: CASSELL & Co., Limited. 1884.

IN the series of Cassell's *Students' Manuals*, the volume on *Materia Medica and Therapeutics*, by Dr. Mitchell Bruce, has been forwarded to us, and fully maintains the standard of excellence displayed by its predecessors. The size and price of the book were, we presume, restricted within somewhat narrow limits; wherefore it happens that certain departments of the subject are treated in rather a meagre way, compared to other departments. A book designed for students, in order to be completely useful, must be sufficiently comprehensive in all sections of a subject to enable them to pass their examinations in that subject; and as, under the present arrangements of the Examining Boards, students are examined in Materia Medica and Therapeutics at a comparatively early stage of their education, they are naturally supposed to have a more extended acquaintance with Materia Medica and Pharmaceutical Chemistry than with Therapeutics. In order to pass his examinations, the student must resort to some other book from which to learn sufficient Pharmaceutical Chemistry, as the subject is but very cursorily treated by Dr. M. Bruce.

This defect, however, being set aside—and it is one which it is most easy for the student to remedy—we have nothing but unqualified praise to assign to the book. There have been several books on Materia Medica published in the English language recently, and at least one more important work is advertised to appear shortly in an English form. Dr. Bruce has given us a veritable *multum in parvo*, which surpasses in matter and manner anything which we have had hitherto in the form of a Students' Manual. The method is truly scientific; the chaos of heterogeneous empiricism in which the Therapeutics of yesterday were expressed is replaced by precise statement of definite facts, to form the Therapeutics of to-day. The actions of remedies are given in their physiological and therapeutical relations, though, perhaps, not quite so distinctly as is done in some other hand-books of Therapeutics; and while every familiar drug is fully treated of, novelties, as chinolin, kairin, cascara sagrada, convallaria, and such like, are also well described. The sections on General Therapeutics are a valuable innovation, and will prove of much service to the advanced student, if he is capable not only of reading, but also of inwardly digesting them.

The not far distant issue of a new edition of the *British Pharmacopœia* will render necessary a revision of the text-books of Materia Medica now in use. We shall hope to see a second edition of Dr. Bruce's manual continue then, as it does now, to surpass its competitors *longo intervallo*.

Medical Extracts.

Case of Lipoma of the Arachnoid.

Dr. Braubach records a case of Lipoma of the Arachnoid of the Cervical Cord, and extending to the point of exit of the 4th and 5th dorsal nerves. The cord was completely compressed and displaced to the left side. Below the region of compression there was descending degeneration of the pyramidal columns.

The nature of the tumour is very rare in this situation. Very few such cases have been recorded: one by Obré, one by Athol Johnson, one by Virchow, and a case of myo-lipoma by Gowers. The paraplegia of the lower limbs, their extreme anæsthesia, the bladder weakness, the extreme contraction of both lower extremities, the increase of their tendon reflexes, need no comment. They depend partly on the compression of the cervico-dorsal cord, partly on the descending secondary degeneration of the lateral pyramidal tracts.

Of greater interest is—

1. The fact that, in spite of the extreme compression and degeneration of the affected part of the cervico-dorsal cord, the conduction through it, at any rate of intense impressions of pain, was still retained.

2. The fact that, in spite of the great degeneration of the compressed parts, the roots on the right side that came off from these affected regions shewed only very slight degeneration, the roots on the left side none.

3. The fact that the left upper extremity could be moved as in health, without any paralysis or contraction; whilst the right arm was paralysed and extremely contracted. The latter symptom was, doubtless, due to the great amount of stretching of the right spinal roots, in consequence of the displacement of the cord to the left; and a permanent state of irritation was present throughout, which gave occasion to tonic contraction of the right upper extremity.—*Arch. für Psych. und Newenkrankeiten*, xv. Band., 2 Hept.

A Case of Tubercle occupying the middle third of the ascending frontal convolution.

Symptoms: Epileptiform convulsions, and concentric paretic phenomena of the right arm, and of the buccal branch of the facial of the same side. Right-sided deviation of the tongue; slight dilatation of the pupil of that side.

Then the convulsions became general, were accompanied or followed by agitation, disturbances of consciousness, delirium, crying or childish laughter. Death from general tuberculosis.—CHVOSTECK, *Jahrbüch für Psych.*, iv. 1.

Pharmacology of Hamamelis Virginica.

In an article on the properties and therapeutic uses of Hamamelis, M. Ch. Eloy points out that though the drug has long been known, and to some extent used, the active principles of the plant have remained unknown; but recently M. Van der Espt has laid before the Société Royale des Sciences Médicales of Brussels the results of his investigations into the nature of the drug. Hamamelis contains no alkaloid; it owes its properties to its richness in gallic and tannic acids, which are present along with a red colouring matter and an aromatic substance. As an astringent to mucous membranes and blood-vessels, an extract of the bark must be used; it is not known for certain whether the leaves possess as much astringent power.

Under the name of Hazeline, there is extensively used in England and America a distilled water of Hamamelis, of which the aromatic taste and odour are rather agreeable. The medicinal activity of this preparation has been less certainly demonstrated.—*L'Union Médicale*, August 9th.

[The above is not in accordance with the general opinion in this country; see, for example, Martindale's *Extra Pharmacopœia*, under Hamamelis. M. Dujardin-Beaumetz, at the Société de Thérapeutique, in May last, stated that he had never seen any of the physiological effects described by M. Van der Espt even after large doses.—Rep.]

Rabies in Birds.

M. Paul Gibier communicated, on July 19th, a note to the Sociétié de Biologie upon Rabies as it occurs in birds. His conclusions are:—

Birds are susceptible to Rabies.

Birds do not have Rabies twice, one attack being prophylactic.

A bird with Rabies can transmit the malady to another bird.

Birds can transmit the malady in a fatal form to mammals, while the birds themselves may recover.

Only when a large dose of the virus is administered to a bird does the disease prove fatal.

The virus of Rabies in passing through a succession of birds seems to increase in the intensity of its effect on birds, but diminish in intensity of effect upon dogs.

In fatal cases he finds the brain crowded with the specific micrococcus of Rabies, which he described for the first time to the Society a year ago.—*L'Union Médicale*, August 28th.

Prevention of Rabies.

The official Commission, appointed some months ago, to control the discoveries of M. Pasteur as to the prevention of Rabies by "vaccination" with attenuated virus, has issued its report upon the first set of experiments.

Forty-two dogs were experimented upon altogether; 23 were rendered insusceptible of Rabies according to Pasteur's method, and 19 were left without protective inoculation. All the dogs received the Rabies virus, either by being bitten by other mad dogs, by intra-venous injection, or by inoculation by trephining.

Of the 23 dogs who had previously received protective vaccination, not one had developed Rabies at the date of the report. Of the 19 unprotected, 3 (out of 6) which had been bitten by a mad dog, 6 (out of 8) after intra-venous injection, and 5 (out of 5) of those inoculated by trephining, developed Rabies; that is, 14 out of the 19.

The Committee intend to continue to make further experiments, especially upon "vaccinated" dogs. The most important point to be determined, however, from the human point of view, is, whether "vaccination" with attenuated virus is capable of protecting the subject from the effects of virus inoculated by the recent bite of a mad dog.—*L'Union Médicale*, August 14th.

Iodine and Ergotine in Goitre.

M. le Dr. Bauwens, à Alost, sums up the varieties of goitre as follows:—

1. Goitre may be sporadic. The constitution of the indi-

vidual is not the cause; it is a local malady, without diathetic cause. Such is the goitre due to mechanical causes, effort, accouchement.

2. It may depend on a blood change, as one of the multiple manifestations of the scrofulous diathesis.

3. It is one of the constituent parts of the triad of symptoms of exophthalmic goitre.

4. It is endemic, as in the deep valleys and narrow gorges of mountainous countries. It is generally allied to other degenerations, and forms part of the symptoms of Cretinism.

5. It exists everywhere epidemically.

After an inquiry into the action of iodine in the different varieties of goitre, he gives the following *resumé*:—

Iodine cures in the endemic, non-degenerated goitre; one may sometimes employ it with success in the soft recent goitres of the scrofulous; it is useless in all degenerated goitres, in the epidemic and in the cystic forms; it is injurious in the sanguineous and exophthalmic varieties.

The author finds that the parenchymatous injection of the tincture of iodine is most useful in cystic goitre, the action being analagous to the similar use of iodine in synovial cysts, mucous bursæ, serous cysts, &c.

The author then inquires into the action of ergotine, and he finds that the general circulation is calmed, the blood supply of the thyroid arteries diminishes considerably, and so gives a first cause of the regression of the vascular tumour. He points out that the thyroid body is a kind of diverticulum to the right heart, and that the more irregular the circulation and the greater the amount of venous stasis, the more also does the gland swell. Ergotine, in regulating the cardiac contractions, restores the equilibrium between the right and the left sides of the heart, and so with the diminution of venous stasis we have a second cause of the regression of the tumour. Such is the general sedative action of the drug; but from parenchymatous injection it is the local action which predominates; and where (the author asks) can ergot better exercise its constricting, contractile action on the smooth muscular fibres which abound in the small blood-vessels than in the thyroid gland, where the fibrous capsule serves more perfectly to localise its effects?

The paper concludes with the following table, giving the indications and contra-indications for the parenchymatous

injection of the Tincture of Iodine and of the Ergotine d'Yvon:—

INDICATIONS.

Tincture of Iodine.	*Ergotine d'Yvon.*
a. Cystic goitre: cure.	Idem.
b. Soft, diffuse, recent goitre: cure sometimes.	Success is certain.
c. Vascular sanguineous goitre: it is dangerous and useless.	Success is certain.
d. Exophthalmic goitre: dangerous.	Its physiological action guarantees success.
e. Degenerated goitre: injurious.	It has cured, even in case of ossified goitre.
f. Fibrous goitre: useless.	It may succeed.
g. Retro-sternal goitre: dangerous.	It should be tried, and will succeed if the tumour be parenchymatous.
h. Cancerous goitre: useless.	Useless.

—*Bulletin de l'Académie Royale de Médecine de Belgique*, 1884, Tome xviii., No. 2.

On Hazeline in Menorrhagia.

"Of the many ailments of women that fall under the notice of practitioners in this colony, menorrhagia may be considered to be a very frequent one. In its many forms it would be perhaps difficult to mention any process that has a surer influence in producing in the first place, and afterwards in maintaining, that condition of languor and debility which is so frequently met with, than this regular draining of blood. I wish to confine my remarks to that form of menorrhagia which begins gradually by an increase in the menstrual flow, creeping on month by month, a slight increase each time, most frequently in the time it lasts, rather than in the quantity lost, which, when continuing unheeded, at last sooner or later —no doubt by congestive mucous swelling—establishes a condition of obstruction, and then pain is felt. As a rule, I have found that it is this pain for which relief is sought; the condition which has established it is not considered anything but natural.

"The main object of my letter is to mention how valuable a remedy the American Witch Hazel, Hamamelis Virginica or Hazeline, is in this disease. It possesses the advantage of acting quickly, with no unpleasant effects, and it is not at all

unpleasant to take, sugared water disguising the taste, somewhat resembling benzoline, that it has.

"In doses of half a tea-spoonful, twice or three times a day, its effect has in my experience been most effectual.

"It acts so quickly that it is not necessary to anticipate the flow, but when menstruation, after it has lasted the ordinary time, is not closing naturally, Hazeline, given as above, will effectually restrain it; and after hæmorrhage has ceased there is no advantage in continuing it. While it is taken, some patients have mentioned to me that they have a pleasant sense of exhilaration, of being strung up, and have lost that wearying sense of languor felt at these times.

"Another good result Hazeline produces is, that when there is Dysmenorrhœa, it, in a very quick and marked way, relieves the pain. I have in my recollection the case of a young lady who suffered severely, so much as to necessitate her keeping in bed, who was once so bad as to require a hypodermic injection of morphia. Since she has taken Hazeline menstruation has been painless, and not excessive as formerly.

"It would be interesting to know if the experience of others agrees with mine on the value of Hazeline as an astringent."—HENRY M. CHUTE, *South African Medical Journal*, February 15th, 1884.

On Fat Embolism.

Dr. Park thus summarises an elaborate paper on "Fat Embolism," in the *New York Medical Journal* of August 16th, 1884:—

1. Fat embolism in varying degrees of severity is not an uncommon complication of surgical accidents and operations.

2. It may be so mild as to be lost sight of in the general condition of shock, or, perhaps, more properly speaking, it is one factor of a condition of prolonged shock.

3. Our knowledge of the subject will be greatly increased when we appreciate the possibilities of its occurrence and observe our cases more closely, watching for the appearance of fat in the urine, of slight dyspnœa, &c.

4. When prostration and loss of blood have been great, a moderate amount of embolic disturbance of this kind may serve to turn the scales against a patient who would have otherwise recovered.

5. By a proper understanding of this subject certain deaths may be explained which otherwise seem inexplicable.

6. Treatment can only be symptomatic, but may accomplish something.

7. Autopsies should be so conducted as to reveal this condition when present.

The Oleate of Zinc.

At this particular season, when intertrigo (chafing) is one of the annoyances to which those, particularly in whom there is a redundancy of adipose, are subject, a reference to the therapeutic properties of the zinc oleate is very timely. The subject has been pretty fully covered in an article by Dr. Stelwagen, in a recent number of the *Medical and Surgical Reporter*, of which *Gaillard's Medical Journal* gives the following *resumé* :—

Oleate of zinc is a dry, white, pulverulent, impalpable powder of a soapy touch, resembling powdered soapstone; if pure, it should make a clear solution with oils, lard, &c., over a water-bath. It may be used either as a dusting-powder or as an ointment. An ointment of one or two drachms to the ounce of cosmoline, or any fatty base, is most commonly used. Sometimes the oleate made up in ointment form with oleic acid seems to be more efficacious. A very good way of prescribing it is as follows:—℞. Zinci oleatis; acidi oleici, aa ʒ j; petrolati; cerati simplicis, aa ʒ iij. Ft. ugt. To a great extent this oleate replaces the oxide of zinc, and may be ordered whenever that substance is indicated. Acute vesicular eczema may be successfully treated with the application of black-wash and the subsequent application of an ointment of oleate of zinc; the wash is to be applied with a sponge or soft rag for several minutes, two or three times daily; after each application has dried, a small quantity of the ointment is gently rubbed over. In some instances the disease seems to be more favourably influenced by the oleate employed as a dusting-powder. When such is indicated, the following will prove an eligible formula:—℞. Pulv. zinci oleatis; talci veneti, aa ʒ iij; amyli, ʒ ij. M. This is to be dusted over the parts several times daily. The same plan of treatment is frequently of advantage in all weeping eczemas. In intertrigo, a dusting-powder, such as given above, is very comforting. This oleate makes a harmless toilet-powder, and combined with talc and calamine, as in the formula above, will make an excellent powder for such purpose. ℞. Calaminæ præparatæ, ʒ ij; talci veneti; zinci oleatis, aa ʒ vij; olei rosæ, q. s. M. S.—Toilet-powder. This last may also be employed as a dusting-powder in moist eczema and similar inflammations.—*Therapeutic Gazette*, July, 1884.

Surgical Follies.

THE TOURNIQUET FOLLY.—In amputations, except in the rarest circumstances, Esmarch's elastic apparatus should supersede the old-fashioned screw tourniquet of Petit. The latter, while indeed arresting the flow through the arteries, nearly always engorges the parts with venous blood, thus inducing venous hæmorrhage, and causing the seat of operation to be obscured. An even worse folly is that of applying a tourniquet to the femoral or brachial artery to stop bleeding from a crushed leg or forearm while awaiting reaction prior to amputation. Pressure should be made *immediately upon and just above* the crushed tissues, by an elastic or common roller bandage, tightly applied. A tourniquet placed far above the seat of injury on the main trunk interferes with the arterial and venous circulation of the whole limb. Amputation, if by necessity delayed for a few hours, must then be performed through tissues that have become œdematous and liable to gangrene because of the stupidity of the surgeon. Pressure over the crushed structures stops all oozing and free bleeding, and is, probably, less distressing to the patient than the tourniquet applied high up. It can do no harm to the tissues already irretrievably damaged and soon to be removed.

THE ASPIRATOR FOLLY.—The aspirator has, probably, done as much harm by encouraging "shrinking surgery" as it has done good in providing a safe means of puncture for evacuating serous effusions and for establishing diagnosis. Many pus collections are repeatedly aspirated by timid hands and heads when salvation of life demands free incision.

THE DRAINAGE-TUBE FOLLY.—To leave a drainage-tube or -strand in a wound after the discharge has obtained a widely patulous exit, or, in fact, has nearly ceased, is an egregious folly. Yet the cry for free drainage has, doubtless, led to many commissions of this error, whereby a drainage-tube is allowed to become a seton.—*Philadelphia Polyclinic*, August 15th, 1884.

A Highly Interesting Record.

In a village, C., near Weimar, where for many years no case of tubercular phthisis had taken place, two years ago several families suddenly discovered one of their members to be suffering from the disease. After a long inquiry, it was discovered by accident that all these families had been buying their spring chickens from one and the same place; viz., from

a private hospital in the neighbourhood. A medical student brought the livers of two such chickens to Prof. Johne, in Dresden. The student, whose own sister had become affected with consumption, had lived during his vacation at home with his parents, in C., and he had there at dinner observed the peculiar appearance of the liver of the chickens.

On examination, both organs were found to be full of tubercular bacilli. A thorough investigation was at once instituted, and it was then that the fact came to light that the chickens eaten by the families, members of which had been infected with tuberculosis, had all been bought from the institution mentioned. On further inquiry at the latter place the following facts were elicited:

At about the time when the first case of consumption occurred in the village, an inmate of the hospital, Mrs. R., had died of the disease. Before her death, Mrs. R. used to feed the chickens raised there; she was often seen first to chew the meat before she gave it to the chickens. Further, the spittoons were emptied on a place in the yard where the chickens generally came to pick up any stray corn.

As none of the chickens ever came in contact with any animals in the neighbourhood—the hospital being situated at a considerable distance from the village—as no disease had happened amongst them until the arrival of Mrs. R., when soon after an epidemic seemed to break out amongst them, and many died—there is no doubt that they contracted the disease from Mrs. R., and in return infected those who ate their flesh.

The case is very interesting, first, as it proves how such animals may become affected, then how they may spread the disease; and lastly, that some kind of a disposition must exist in the person infected; for here, of many who had eaten of the diseased flesh, only a few contracted the malady. The whole report teaches us how careful we have to be, and how necessary is the appointment of skilful experts by the State to inspect all food offered for sale.—*Medical and Surgical Reporter*, August 16th, 1884.

Picrotoxin in the Treatment of Night-Sweats of Phthisis.

Too frequently in the treatment of phthisis the physician's best efforts must be confined to alleviating the symptoms, and, with the prospect of inevitable death before him, hope only to secure tolerance of existence on the part of the patient,

and euthanasia. Among the more distressing symptoms or complications which may demand attention are the night-sweats. For the relief of these a great variety of remedies has been from time to time suggested. Drs. Westbrook and Platt, physicians to the Department of Diseases of the Chest in St. Mary's General Hospital, of Brooklyn, New York, contribute to the *New York Medical Journal* the results of their experience with several of the more recent drugs in the many cases in which they were furnished an opportunity for carefully trying them. The drug which they used in the greatest number of cases was picrotoxin. The result of its use in nine cases was to entirely check the sweats in six cases, and to relieve them greatly in two. In one very troublesome case it seemed to have no effect whatever. Their method of administering it was either hypodermically or by the mouth, at intervals of two to ten days, and in doses of from $\frac{1}{60}$ to the $\frac{1}{20}$ of a grain. It was found in some cases that $\frac{1}{20}$ of a grain hypodermically, at night, would control the sweats for ten nights following. These results are corroborative of a favourable report made by Dr. Murrell, of London, who had but one failure in twenty cases, and found the effect to run about ten days. Dr. Murrell, however, accomplished his results with much smaller doses, giving from the $\frac{1}{180}$ to the $\frac{1}{60}$ of a grain only. Atropine was also employed in a number of cases, but although it was tolerably successful as regards the sweats, it was objectionable owing to the annoying dryness of the throat, which followed its use.—*Therapeutic Gazette*, August, 1884.

The Therapeutic Properties of Buttermilk.

Buttermilk, so generally regarded as a waste product, has latterly been coming somewhat into vogue not only as a nutrient, but as a therapeutic agent; and in an editorial article the Canada *Lancet*, some time ago, highly extolled its virtues. Buttermilk may be roughly described as milk which has lost most of its fat and a small percentage of its casein, and which has become sour by fermentation. Long experience has demonstrated it to be an agent of superior digestibility. It is, indeed, a true milk peptone; that is, milk already partially digested, the coagulation of the coagulable portion being loose and flaky, and not of that firm indigestible nature which is the result of the action of the gastric juice upon sweet cow's milk. It resembles koumiss in its nature, and, with the exception of that article, it is the most grateful, refreshing and digestible of the products of milk. It is a

decided laxative to the bowels, a fact which must be borne in mind in the treatment of typhoid fever, and which may be turned to advantage in the treatment of habitual constipation. It is a diuretic, and may be prescribed with advantage in some kidney troubles. Owing to its acidity, combined with its laxative properties, it is believed to exercise a general impression on the liver. It is well adapted to many cases where it is customary to recommend lime-water and milk. It is invaluable in the treatment of diabetes, either exclusively or alternating with skimmed milk. In some cases of gastric ulcer, and cancer of the stomach, it is the only food that can be retained.—*Ibid.*

Nairne on Statistics.

Do not be deterred by "statistics" from doing what you conceive to be your duty—statistics is a kind of "bogle" set up by the disingenuous, mostly as a signal mark of their own ability, and a dreadful "scare-crow" to others. Distrust them; they may mean anything, they may mean a selection of picked cases, of easy cases, of cases that would have got better under almost anyone's hands, of young, healthy, vigorous patients; they may be an indication certainly of dexterity on the part of the operator, gained by experience, or they may be a freak, a run of successful cases with no special merit to the operator. It is, indeed, high time that this statistical curse were abolished, if it cannot be put on a proper basis, and the miserable quibblings about one man's work, in comparison with another's, brought to a final termination. The justification of any operation is its necessity, and not the numerical recoveries from its performance; but we are all inclined to shirk operation in desperate and unlikely cases when we can, in case we are blamed for hurrying on a fatal termination, or for fear that the patient die under our hands, or immediately after.—*Glasgow Medical Journal*, June, 1884.

Seiler on the Treatment of Ozœna.

The treatment for atrophic nasal catarrh must be divided into two portions, viz., the removal of the accumulation of secretion and the disinfecting of the nasal cavities to remove the odour, and the stimulation of the mucous membrane, with a view to the regeneration of the serous glands.

This may be accomplished in the following manner:—The nasal cavities are first cleansed with a copious stream of alka-

line solution from the nasal douche; and let me tell you here that this is the class of cases in which this much-abused instrument is not only applicable, but extremely useful without being harmful. If after this any plugs remain in the nasal cavities, they must be removed with a pair of forceps, and the washing repeated until all secretion has been removed, as you saw me do in the case before us. The next step is to disinfect the nasal cavities. Various substances have been used for this purpose, such as permanganate of potash, chlorine water, tar water, carbolic acid solution, iodoform, and many others; but they all have either great disadvantages, or else are but partially effectual. Lately I have used a preparation called Listerine, which answers the purpose admirably, without having any of the disadvantages of other disinfectants. It is a combination of the essential oils of thyme, eucalyptus, gaultheria, and other plants, together with a small quantity of benzo-boracic acid, and should be diluted one-half with water when used by the atomizer. The immediate effect is to at once destroy the stench from the nose, and to substitute for it the odour of the oil of thyme, which is rather pleasant than otherwise. I am in the habit of using a spray of this solution before making an examination, or before I cleanse the nasal cavities of such cases, thus mitigating very materially the discomfort to myself arising from the stench. The patient is directed to cleanse his nose with a solution of two drachms of bicarbonate of soda to one quart of tepid water morning and evening, and to throw a spray of the Listerine solution into the nostrils after the cleansing. Treated in this manner, I have seen many cases in which the odour was barely perceptible after the lapse of three or four days, and remained in abeyance throughout the treatment. The oil of thyme and of eucalyptus, besides being disinfectants, have also a stimulating effect upon the mucous membrane, and thus aid in the second portion of the treatment.

The stimulation of the serous glands to a normal action may be brought about by a variety of remedies, such as astringents in various strengths; but in my experience the insufflation into the anterior nasal cavities of finely powdered nitrate of silver, diluted with starch powder, has given the best results. When there is complete absence of the lower turbinated bones, the introduction of a wad of absorbent cotton, which is to remain until washed out, and then be reintroduced by the patient himself, often aids in the stimulation by continually irritating the mucous surface with which

it is in contact. Next in effectiveness to the silver powders, I have found a weak solution of ferric alum in the form of a spray thrown into the nasal cavities, and the natural iron water of Cresson springs is peculiarly adapted for these cases.—*Medical and Surgical Reporter*, April 19th, 1884.

A Plea for More Heroic Surgical Interference in Affections of the Brain.

Dr. R. W. Amidon thus recapitulates an article on this subject in the *Medical News*, June 21st, 1884:

We have trephining, an operation proving fatal in only three per cent. of published cases:

Opening the dura mater, fatal in only 7·6 per cent. of published cases:

We have the brain, an organ tolerant of injury and ready to take on a reparative process:

We are possessed of a knowledge which enables us to tell when certain parts of the brain are diseased; and we also have anatomical data which tell us just where to pierce the envelopes of the brain to reach a certain definite part of its convexity.

We have all the elements of safety and anatomical accuracy: why should cerebral surgery not advance with pulmonary, renal, intestinal, and ovarian surgery?

The substitution of the dental engine and a burr or drill cutting on the side for the ordinary trephine strikes me as advantageous. Its advantage over the trephine is principally that with it you can cut away as much or little bone as you please, and make an opening of any shape you please. It is especially useful in trimming down the edge of over-riding bone, to allow the elevation of depressed fragments.

Let the operation always be done with antiseptic precautions. Try and secure only approximate coäptation of the flaps. Provide the freest possible drainage. Use cold antiseptic dressings, without much compression. Enjoin the strictest quiet in a posture facilitating drainage. Simple diet, and a slightly loose condition of the bowels. On the slightest rise of arterial tension or temperature, give jaborandi or aconite to the production of physiological effects. Quinine and alcohol should, I think, be given only in tonic doses. An anodyne is often indicated, and it is my advice never to use opium, or any of its preparations or derivatives. To

ease pain, quiet delirium, or induce sleep, use the hydrate of chloral in small repeated doses (·60–1, every ten or fifteen minutes). Quinine and alcohol in large, and opium in *any* dose, aggravate intracranial inflammation when present, and, I think, may excite it.

These suggestions apply equally well, or with still greater force, to cases in which the dura mater or brain is accidentally or intentionally invaded.

A few words as to what I consider good indications for opening the skull.

An injury of the vault, however slight the marks of external violence, provided there be coma, aphasia, hemiplegia, or hemispasm of the lower part of the face, of the arm, or leg, or all three, constituting hemiepilepsy, whether accompanied or not by chills, fever, headache, and vomiting. General epileptic convulsions do not constitute so good indications for operation. Every case of compound fracture of the skull, whether there be cerebral symptoms or not. Cases in which, after the lapse of months, or years even, unmistakable cerebral symptoms follow an injury to the head. Atrocious and incurable headaches, particularly if localized, aphasia, monoplegias and monospasms, hemiplegic or hemiepileptic seizures or general epileptic attacks, if they have an aura pointing to a localized lesion. In addition to the bone, the dura mater should be opened in all cases in which exploration with a hypodermic needle discloses the products of purulent inflammation or a great deal of fluid blood under it. In all cases in which a serious lesion of the brain is suspected, but cannot be otherwise proven.

In addition to the bone and dura mater, the brain should be explored, delicately with a probe, in all penetrating wounds of its substance, punctured, lacerated, or gunshot. Its mass should be invaded, even when superficially intact, by a fine, blunt, exploring needle, when the presence of foreign bodies or hidden collections of pus are suspected, and, for the extraction or evacuation of such, larger openings should be made with a dull instrument.

Finally, accessible neoplasms of the brain, which have resisted medicinal treatment, and which continue to grow and threaten life, should be removed for the reason that they are generally single, seldom have secondary deposits, are surrounded by an inflammatory zone of demarcation, and *always* kill by pressure.—*Ibid*, July 12th, 1884.